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EDUCATION

VOLUME 77 *Our Seventy-Seventh Year of Publication* No. 7

TESTS AND MEASURES

Using and Interpreting Achievement Test Results
Research Uses and Tests Programs
Success Levels for Retarded Readers
Evaluating Spelling Ability, Progress and Achievement
Evaluating Social Maturity
The Teacher and Personality Assessment

SPECIAL ARTICLES

The Facts of Life
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VOL. 77 MARCH, 1957 No. 7

TESTS AND MEASURES

RALPH C. STAIGER, *Guest Editor*
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EDUCATION

VOL. 77 MARCH, 1957 NO. 7

Using *and* Interpreting Achievement Test Results

By EMERY P. BLIESMER
University of Texas

A CONSIDERABLE OUTLAY of time, effort, and money is entailed in the widespread use of standarized achievements tests in elementary schools. The extent to which this outlay can be justified depends upon the uses made of test results or scores. What, then, are some uses to be made of test results? How can teachers use and interpret obtained test results so that they will be able to help pupils more effectively?

Test results may be used as one of several means of determining progress made over a period of time. For this purpose, of course, tests will need to have been administered at regular intervals. In schools which have a regular testing program, achievement tests are usually administered once each year, typically at either the beginning or end of the school year.

The typical achievement test consists of a number of tests, or subtests, for each of various curricular areas (such as tests for reading, arithmetic, social studies, language skills, and spelling) rather than being just one general test. One of the scores usually obtained is an "average achievement" score, an average of all the subtest scores. This average score can be relatively meaningless. If, as sometimes happens, a child should do rather well on some subtests but has rather low scores on others, the average score alone would give no indication of this. To be of help to a child, a teacher needs to know in which areas he might be strong and in which ones he might be weak; and the various subtest scores will need to be studied to determine this. Also, if several subtest scores are involved in an "average" reading, arithmetic, language skills, or other score, the subtest scores involved will need to be examined if better knowledge and understanding of a child's achievement in an area is to be obtained. Similarly, possible areas of strength and weakness for a class may be revealed by studying the average score of the class on each subtest.

Diagnostic Use

While achievement tests are not strictly diagnostic tests, they may be used in a diagnostic way, to some extent—particularly in discovering weaknesses or needs of pupils who have low scores. When used for this purpose, the

teacher will need to study a child's performance on each item of a particular subtest and note the understandings and skills involved in the items missed. For example, a child might have answered correctly most of the basic addition, subtraction, and multiplication facts in an "Arithmetic: Fundamental Operations" subtest but might have answered wrongly most of the items involving division facts. Just looking at his subtest score alone would not reveal this lack of mastery of division facts. Or it might be discovered that a child missed very few items involving basic facts of addition, subtraction, etc. but he missed quite a number of problems, indicating a possible weakness in making functional application of basic number facts or in determining what fundamental operations (such as addition or multiplication) are involved in given problem situations.

Analysis of a child's performance on a reading subtest might show very few mistakes on items calling for recall or recognition of stated facts but most of the errors occurring on items which required drawing conclusions or formulating main ideas. Indications resulting from this type of analysis of performance serve as cues for further investigation with various individual children. Further checking is needed because the number of items involving each of a number of specific understandings or skills is usually too small to warrant definite diagnoses or conclusions.

Achievement Level

Parents and teachers are sometimes puzzled by what seems to be a discrepancy between a child's achievement level, as indicated by a test score, and the level at which he can actually perform in daily school activities. This is perhaps most often noticeable in the area of reading. For example a pupil may have a fifth grade level reading achievement score; but the teacher finds that in his daily school work he is able to read adequately materials of only a fourth grade, or lower, level. Research relative to this "discrepancy" is, in general, lacking; but there are seemingly plausible explanations. Many children work on tests with a high and intense degree of effort and concentration. The relatively short time required by tests enables a child to continue this high level effort throughout the test, or most of it. If children worked at this maximum level or peak pitch day after day in school, classrooms would probably be filled with emotionally exhausted or worn out children. Thus, the level at which children can work successfully with some degree of ease and comfort (the instructional level) may quite often be lower than the achievement level.

Comparing Pupil Achievement

A somewhat obvious purpose which tests serve is to compare or rank pupils or classes. Quick study of a set of scores will usually reveal which children achieved at highest, around average, and at lowest levels. After working with a class for a time, most teachers will already have a fair notion of relative rankings of pupils. However, judgments of teachers, just as those of others, are not always reliable; and test results may reveal some children for whom a teacher's opinions are overestimates or underestimates and for whom, consequently, expectations may be too high or too low. When average scores of classes are determined, classes within a school, or

schools within a system, may be compared. However, ranking or comparing should not be the sole, or even primary, function of tests. Test scores will reveal achievement status at the time a test is given; but to be helpful to teachers and children, the how and why of individual statuses need to be examined.

Test Scores

Thus far in this paper, a term, "test scores", has been used without acknowledging that there are various kinds of scores. The number of items answered correctly on a test (the raw score) is a relatively meaningless score. With standardized tests, (tables of norms) which enable us to convert raw scores into a more meaningful type of score are usually presented in manuals or directions accompanying the test. The most meaningful and most frequently used type of achievement test score in elementary schools is the *grade-equivalent score*. This is usually expressed in terms of school years and months. For example, a grade-equivalent score of 4.6 would be read as the sixth month of the fourth grade and would mean that a child's performance on a given test is typical of children who are in the sixth month of fourth grade. *Age-equivalent* scores are also frequently determined but are usually of less use to classroom teachers. Such scores are expressed in terms of years and months and indicate the chronological age level for which a given test performance or raw score is typical. For example, an age-equivalent score of 11-3 for a child would mean that his performance is typical of children who are eleven years, three months old. Scores may also be expressed in terms of *percentile ranks*, which indicate the rank of a given raw score by telling what percent of scores would typically be lower than a given one. This type of score is used widely at high school and college levels but used somewhat infrequently at elementary levels.

A reference standard often used, in practice, to evaluate a pupil's performance on a given test is his grade-placement level. If, for example, he is in the ninth month of the fourth grade and his grade-equivalent score on a test given at that time is 4.9 (corresponding with his grade-placement level), he is often considered to have met expectations. If, however, his score is somewhat lower (for example, 4.1), he is often regarded as having fallen below standards or expectations. To do justice to a child and to be of most help to him, expectations or standards need to be based upon his intelligence, or capacity, or potential, level. Since intelligence levels of children in a typical class will vary, expectations or standards will also vary for different children. In the illustration above, an expectation level of 4.9 (grade-equivalent) would be justified, generally, only for those children in the class who were of average intelligence. It would be too high for pupils of below average intelligence and too low for the bright pupils. In schools where children are grouped into classes according to intelligence, it is possible that in some classes no child could reasonably be expected to achieve at grade-placement level and that in other classes the expectation level for every child would be above his grade-placement level.

It is not to be inferred that achievement test scores are infallible or that implicit faith can always be placed in the validity of scores. Sometimes the ways in, or the conditions under, which

a pupil works on a test are such that his scores are rather inaccurate indications of what he can actually do. A child may, for some reason be so upset that he cannot concentrate upon and direct his efforts toward the demands of the test. Because of repeated failure in much of their school work, some children react to tests by giving up without further trial or effort after meeting several relatively difficult (for them) items, or they mark items indiscriminately. Some might have misunderstood directions and, so, have indicated their answers incorrectly. A pupil might be ill and be unable to perform at his best. If a child is a poor reader, he may be unable to read a test adequately; and his scores on subtests for some areas may reflect his poor reading ability rather than his achievement in those areas. These and other factors may operate to make some children's scores inaccurate indications of actual achievement levels. A teacher needs to have information concerning the conditions under which various pupils took a test if she is to interpret and use test scores effectively.

To make administration of tests in schools feasible and practical, a test is, of necessity, a representative sampling, rather than a complete coverage, of the many skills and understandings involved in an area. This does not invalidate use of test; the possibility that a child has a considerable number of understandings or skills, but the test does not sample any or most of these, needs to be considered. It might also be found that the content of a particular test is quite inconsistent with the curricular content of a particular school or a number of schools; children in those schools may then have had little contact with or exposure to the type of content involved in a particular test. It also needs to be realized that some degree of error is involved in scores obtained with the best of tests; test scores are approximations of true or actual achievement rather than exact or completely accurate indications.

In Conclusion

Tests then, may serve varied purposes. To use test results effectively, more than comparing various children's scores is necessary. The how and why, as well as the mere fact, of children's scores need to be considered. Teachers will need to study the actual work of pupils on tests, as well as test scores; and some understanding of the nature of test scores and principles involved in construction of tests is required. While they are but one of many needed considerations in pupil evaluation, test results, if used carefully and wisely, can help a teacher considerably in doing her work effectively.

Research Uses *of* Testing Program

By MAY LAZAR
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THE USE OF standardized tests in the classroom is now a part of the regular school program. Teachers, principals, and counselors use tests to help them guide children in their progress through school. Tests results are helpful in the selection of instructional methods and materials, in administrative functions such as classification and grouping, in curriculum adaptation, and in the choice of courses and vocational training.

Tests are used extensively also by persons somewhat more removed from the classroom—research workers, administrators, field supervisors, members of boards of education and of governmental and other agencies. The uses to which these individuals and groups put test results are less immediate. Nevertheless, classroom practice and, in the long run, children's progress and achievements are affected.

Research in the Field of Education

A large corps of research workers operate in the field of education. Experimentation is going on in classrooms at every level in public, private, and parochial schools. Clinics and special laboratory centers also engage in research projects. Research is being conducted under the auspices of universities, governmental agencies, and private foundations. Large public school systems generally have special bureaus for independent research activities.

Not all this research involves the use of standardized tests, but much of it does. Sometimes the testing instruments are highly technical and require the specialized services of a clinic worker. Often, however, they are the ordinary standardized group tests that the teacher uses in regular classroom practice. Just as the standardized tests constitute one more aid to the teacher in his endeavor to understand and provide for his pupils, so tests help "behind-the-scenes" workers in their efforts to upgrade school accomplishment. Research, supervisory, and administrative personnel use tests in two general ways—(1) in connection with surveys of the school population; and (2) in connection with experimentation.

City-Wide Test Surveys

One of the ways by which the superintendent of a school system can see how well his schools are doing is the testing survey in which all children in a particular grade or grades participate. In the New York City public school system, for example, surveys of the intelligence and achievement of the pupils in various grades are conducted annually by the Bureau of Educational Research

for the Superintendent of Schools. The test results obtained in these surveys are evaluated against the many factors which affect achievement—the characteristics of the pupils involved, the opportunities afforded by their homes and communities, as well as the facilities provided by the school. The individual test results are used by the classroom teacher, but the composite results are also valuable to headquarters personnel.

Surveys and the Improvement of Instruction

The testing survey gives the superintendent, directors of special departments, supervisors of school districts, and others a comprehensive view of the city's schools with respect to the educational area covered by the test. Surveys in reading, for example, clearly show the great differences in average level of achievement from school to school. The standardized test serves as a yardstick against which different groups can be measured with a fair degree of accuracy. This is its prime function. From the results of the survey, a supervisor can see the spread of the schools in the city—how the various schools and districts stand in relation to one another on the test.

This comparison, however, is not the end objective of the survey. The main objective is the gathering of information important for educational planning. The survey results serve as frames of reference in developing curricula, differentiating instruction, and selecting materials. The data are valuable also for identifying schools that need supplementary help. For example, reading test results in the New York City schools serve as basic data in the granting and allocation of funds for remedial services.

Other Uses of the Survey

When the test data are gathered from all the schools, the superintendent of a school system can see where his group of schools stands in relation to the nation. This information as to with-nation status helps to give him perspective on current national trends in education. From the data for the city, a superintendent can also compare present status with the past. The objective test data are valuable in defending the schools against critics who hark back to "the good old days."

Survey test data are frequently passed on to other agencies that are working to improve the schools. The superintendent is called upon to report to the Board of Education and to the general public as to the status of the school system he heads. He submits test data to various state and national agencies; for example, in connection with surveys or special studies conducted by the State Education Department or by the United States Office of Education. The data are also valuable for a variety of other research purposes by individuals and groups in schools, universities, research bureaus, and other organizations.

Tests and Experimentations

Standardized tests are valuable instruments in experimental work. They offer objective means for describing the effects of experimental procedures and help determine which procedures will produce better results. In the course of experimentation, pupil groups are carefully set up; different methods, materials, and procedures for improving instruction are tried out and their success measured by means of tests.

Standardized tests cannot, of course,

yield all the information that is desired concerning a particular procedure. Additional measuring devices are needed. Increasing use is being made today of other less formal instruments for evaluation; e.g., inventories, check lists, rating scales, records, interviews. Time samplings, directed observations, motion pictures, recording devices are also employed. Sociometric methods for studying group relationships are used. Nevertheless, group standardized tests of academic aptitude and achievement are still very important. Often they are used not so much to help judge whether one procedure is better than another, but rather to confirm success in academic areas while other important but less tangible gains are being made in the areas of personality and attitude.

The Bureau of Educational Research of the New York City Board of Education has used standardized tests in a variety of experimental studies—in programs of "delayed" reading instruction, of reading and mathematics, of core curricula; in investigations of the effectiveness of vocational instruction in different types of high schools; in evaluations of procedures with the handicapped and of special programs for the gifted.

The Bureau has a long history of research in the use of tests. As early as the 1920's, the Bureau was studying tests for their usefulness in the classification and grading of pupils. Later, attention was given to the diagnostic value of tests and their usefulness in the improvement of instruction. The Bureau evaluates newly-published tests, constructs its own tests and scales, and makes every effort to improve testing techniques in experimental work and in general classroom practice as well.

Standardized Tests and Educational Policy

The schools are in a constant state of flux as they climb to higher and higher levels of success. Tests used in the evaluation of experimental procedures help show how the schools can be improved. Test surveys help to check on the effectiveness of changes made. Tests also help to show where further improvement is needed. And thus, the cycle of investigation, testing, and retesting is started anew.

Those who influence or make educational policy take cognizance of the latest research findings and utilize this ever-expanding fund of knowledge in the interest of school children. Slowly and gradually, curriculum and instruction are molded. School procedures are altered. Changes in classroom practices are effected. Thus, directly and indirectly, research involving the use of standardized tests gradually feeds into the classroom.

Standardized tests spurred the twentieth-century scientific movement in education. Many of the changes that have been introduced in the school during the past few decades have been based on experimentation and research involving the use of tests. Hardly an area of school instruction has not been modified by research in which standardized tests have had some role. The fundamental acceptance of individual differences, which is the foundation of the developmental approach in modern school programs, is based primarily on the evidence provided by tests.

To some extent at least, school policy today can be set on the basis of scientific evidence rather than on subjective opinion alone.

SOME PUBLICATIONS RELATING TO THE USE OF TESTS IN RESEARCH ISSUED BY THE BUREAU OF EDUCATIONAL RESEARCH, BOARD OF EDUCATION, CITY OF NEW YORK

An Annotated List of Standarized Tests. Publication No. 35. January 1956. 62 pp. Lists standarized tests of intelligence, achievement, aptitude, personality, and interests with brief description of content, grade levels recommended, and brief evaluative comments.

The Retarded Reader in the Junior High School: A Guide for Supervisors and Teachers. Publication No. 31. September 1952. 126 pp. Although this is mainly a manual of instructional and guidance procedures, considerable attention is given to the use of tests in remedial work.

The Informal Appraisal of Reading Abilities. Educational Research Bulletin No. 10. May 1949. 45 pp. Suggests day-to-day techniques for appraising various aspects of reading; contains hints for constructing informal tests, scales, inventories.

Determining Readiness for Reading. Educational Research Bulletin No. 6. September 1943. 49 pp. Suggests methods of determining general readiness for formal instruction in reading. (Out of print.)

A Diagnostic Approach to the Reading Program, Parts I and II. Education Research Bulletins Nos. 3 and 4. March and April 1942. 25 and 32 pp. Suggests techniques found effective in studying the reading needs and difficulties of pupils.

Appraisal of Growth in Reading. Educational Research Bulletin No. 2 November 1941. 42 pp. Describes how standarized tests and other appraisal techniques can help in the individualization of instruction in a broad reading program. (Out of print.)

Diagnostic and Remedial Work in Arithmetic Fundamentals. Publication No. 21. 1928. 204 pp. Shows how tests were used to diagnose difficulties and to measure the effectiveness of remedial procedures in arithmetic with intermediate grade pupils. (Out of print.)

Educational Measurements for the Class Teacher. Bulletins 1 through 16. Published between 1921 and 1930. 8 to 16 pages each. Shows how test analysis can lead to improved instruction in various areas—penmanship, spelling, arithmetic, map reading. Some of the bulletins in the series are devoted to elementary statistics for classroom use. (Out of print.)

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Success Levels *for* Retarded Readers

By EMMETT ALBERT BETTS
Director, The Betts Reading Clinic
Haverford, Pennsylvania

WHEN would-be athletes turn out for high-jumping practice, the track coach conducts try-outs. By means of these try-outs, or tests, he finds out how high each boy can jump. From past experience, he knows that many boys can clear a bar set four feet high and that a few boys can clear a bar at five and one-half feet. In short, the coach expects boys of about the same age to vary considerably in their beginning records.

This track coach has a point of view which we need to understand: he expects *differences* in ability. There are big differences in what individuals of the same age can do in sports, music, art, reading, or any other activity.[5]

There are big differences in the ages when children learn to talk. For example, Karen began to use words at eight months; Virginia, at twelve months; and Billy, at forty-eight months.

Consequently, there are differences in the ages at which children learn to read. At three years of age Charlie was reading street signs and easy-to-read letters from his aunt. At four years of age, Sally was enjoying third readers. These exceptional children begin to read early.

Between their sixth and seventh birthdays most children take some interest in reading. However, George was not ready to learn to read until he was nine years of age. Because he was generally slow in growing up, Paul learned to read only street signs, road markers, and the like when he was twelve years old.

Yes, the track coach is aware of the differences in ability because he has learned to see them. Differences in ages at which children learn to walk are obvious to parents who keep records of their children's growth. Likewise, differences in readiness for learning to read and in reading abilities stand out clearly for teachers and psychologists. Being aware of these differences is the starting point for parents and teachers who give the right help when it is needed.[9]

How High Can He Jump?

The track coach knows all too well one of the fundamentals of teaching: set the bar at a height where the athlete can clear it. He knows that if he sets the bar so high that an athlete cannot clear it, he not only discourages him but also creates an impossible learning situation. So the coach knows that he must begin where the learner is—at a level where the boy can clear the bar.

By using the coach's idea, we can help our children with their reading problems. Since readers and other school books are graded in difficulty, each suc-

ceeding book calls for more and more skill. For this reason, Tommy cannot be expected to read a fourth-grade book if he cannot read a primer. Likewise, Jane cannot read a ninth-grade book if she stumbles in reading a fifth-grade book. Therefore, finding out how high one can jump in reading seems to be a sensible idea.[5]

Reading Levels

Perhaps this idea of estimating reading levels can be best illustrated by Donald's case. Donald was ten years old when he came to us for help. Like many retarded readers, he was in the depths of despair. He hated school, disliked his teacher, and thought his parents were unfair. He felt that everyone was against him because he couldn't read and didn't like to read. He wasn't even sure that he could learn to read—maybe he was hopeless![7]

In one way, Donald may have had a fortunate school situation. He was not considered for demotion to a lower grade. He was not held back with younger children. Instead, he was permitted to stay in the class with his age mates. He was now in the fifth grade, but was unable to read with any group in the class.

Remembering the example of the track coach, we decided to find out how high Donald could jump in reading. For this purpose, we used a set of school readers, graded in difficulty.[8]

Donald's Independent Reading Level

At the pre-primer, or beginning, level, Donald had no difficulty. This was his independent reading level. He read orally at sight without hesitation and with good expression. He read silently without lip movement, finger pointing, or other signs of difficulty. His comprehension was excellent. Even more important, Donald was amazed that he could read anything so well.[6]

First Signs of Difficulty

The primer—the second book of the series — had more words, longer sentences, and other elements which posed additional problems for Donald. At this primer level, the first symptoms of his difficulty appeared.

Donald could recognize twenty-six out of twenty-seven words in his oral reading at sight of the first page. But his oral reading at sight, was not smooth, or rhythmical.

On the second page, he read silently to answer our questions. Here, there was a slight indication of lip movement when he came to unknown words. Donald reread orally parts of this page to answer our questions. Using the help he had gotten from his preparation through silent reading, he read orally with rhythm and expression.

Up to this point, Donald had proved to himself two things. First, he could read *on his own* at the beginning, or pre-primer, level. While it was true that interesting books at this level were not available, nevertheless he could read something—even though it was only a pre-primer! Second, he could read a primer under teacher guidance, without practicing bad reading habits, such as lip movement. That is, he could do it if he had a chance to always read silently first, and if he learned how to use phonics and other word recognition skills as he progressed.[10]

With a sigh of relief, Donald commented, "I didn't know I could do it. Maybe I'm not hopeless."[3]

More Signs of Difficulty

With some misgivings, Donald attempted to read the next book—a first reader. At this level he was up against two-line sentences, longer words, more kinds of punctuation marks, and other elements which made the going rough.

Donald tried to read the first page orally. He made two starts on the first sentence. He could not recognize *stopped, climbed,* or *picked.* He substituted *dogs* for *puppies.* He didn't know what to do about a comma which he interpreted as a period. He did word-by-word, unrhythmical reading in a high pitched voice. Donald summarized his situation with one remark, "This *is* getting tough."[10]

After we reminded him of how his oral reading in the preceding book had smoothed out following silent reading, Donald read the second page silently. He began to run his finger under each word, whispering to himself. He asked for help on the recognition of two out of thirty-seven words. He had to reread the selection twice in order to answer one of our questions.

Following the silent reading of the second page, Donald read parts of it aloud to answer our questions. His oral re-reading was much smoother than when he read the first page aloud at sight. But he was still bothered by the difficulty of the written language.

Donald's recovery of his ability to read rhythmically and with a conversational tone following silent reading was good news. His ability in this respect meant that he was a run-of-the-mine retarded reader. He could be taught by traditional methods IF his teacher used beginner's books.

Frustration

When we gave Donald the second reader, he squirmed in his seat and frowned at the page. The first word and the last three words of the first sentence were blanks for him. On the next sentence he fared no better. He could not begin to understand the story because the words were so much black ink to him. He was stopped cold. Donald was completely frustrated!

Donald had his own way of describing his situation. "This is hopeless!"

There are some people who will say, "Donald couldn't read a first reader, but I bet that he could read the fourth-grade book he had in school last year!" Well, we gave Donald this chance. He was a realist—skeptical of the outlook—but willing to try.

When shown the fourth reader used in his class the year before, however, Donald became tense and exclaimed, "I hate that book! I hate the stories. Why, I even hate the color of it!" We were unable to persuade him to attempt reading the book. Donald knew when he had both shoulders on the mat—when he was counted out by the referee!

Number of Symptoms

Donald's case illustrates an important point: signs of trouble multiply at each succeeding level.

Remember that Donald read the preprimer with excellent comprehension and without the use of crutches, such as finger pointing and lip movement. At the primer level, he could not recognize all the words. Furthermore, he used lip movement, which was a symptom of his word-pronouncing problem.

At the first reader level, Donald's number of symptoms jumped from two to five. He resorted to finger pointing in

order to keep his place on a line of unknown print. He repeated a part of a sentence to pick up the thought. He could not pronounce some words and made substitutions for others. He read in a high-pitched voice because he was under emotional pressure. Worse still, his comprehension dropped because he was bogged down with printed words he could not identify.

Word-by-word reading, frowning, tenseness, lip movement, finger pointing, errors in word pronunciation, low comprehension, a high-pitched voice, lack of interest—all these and other types of behavior are symptoms of reading difficulty. When Donald, Tommy, or any other person is required to read material which produces these symptoms, they drill bad habits into their nervous systems. Even worse they learn to dislike—or to hate!—reading.

Intensity of Symptoms

Donald's case illustrates another point: each symptom becomes worse as the reading material becomes more difficult.

Donald had no lip movement when he read the pre-primer. He began to make use of silent lip movement at the primer level. He began to whisper the words to himself at the first-reader level. He was muttering the words to himself when he tried to read silently the second reader. In short, this sign of trouble became worse from one reader level to another.

Donald's voice gave another clue to his reading level. When he was at ease, he read in a conversational tone. As he began to meet unfamiliar problems, he became tense and raised his voice. As he met more new situations, his voice became shrill, high-pitched.

Word pronunciation errors offer another good example of how a symptom can become worse at each level of difficulty. Donald asked for some help at the primer level. At the first-reader level, he both mispronounced and substituted words. However, his substitutions (for example, *dogs* for *puppies*) made sense; they were meaningful. When he made an unsuccessful attempt to read at the second-reader level, his substitutions (for example, *boy* for *deep*) did not make sense. He could not get enough of the story to help him with the meaning of a word.

Donald knew when he was reading at par. He was very much aware of the need for more skills as he read at higher levels. He needed no expert to tell him he was mired down. The symptoms stood out for him like beads of sweat on his forehead.

A Clear Statement of Truth

Estimating a child's reading level is king's business. Because we believe this, we always demonstrate for parents and teachers how it is done. For one of our demonstrations, nine-year-old Debbie volunteered. After Debbie was introduced to the audience, we explained that we were going to find how high she could go in reading a set of books. Since Debbie was confident and at ease, she was eager to try the idea.

Debbie had the reputation for being an excellent pupil in her fourth-grade class, so we gave her a running start with a third reader. While she seemed to enjoy the story, she was not having to use all of her ability. Neither did she with the fourth-reader story!

At the fifth-reader level, Debbie did

not break her stride, but she was finding the selection a challenge. She appeared to be reading at her level of ability.

Debbie was having a good time, entering into the reading and discussion with enthusiasm and poise. When we occasionally commented to the audience on points in the demonstration, she listened earnestly.

At the sixth-reader level, Debbie began to show signs of trouble. Her reading rate fell off sharply and she was unable to grasp all the ideas. She mispronounced *smugglers* because she did not know the meaning of the word. Even Debbie, a superior reader, was beyond her reading level.

Debbie reacted nobly. She had understood the purpose of the demonstration, modestly volunteering to read the books for ten-and eleven-year-old. Sensing the main idea of finding reading levels, Debbie brought the meeting to a dramatic point with this straightforward explanation to the audience: "If you can't do it low, you can't do it high!"

If Debbie's clear statement of truth could be put into practice, there would be much more happiness in schools and homes.

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Evaluating Spelling Ability, Progress *and* Achievement

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EVALUATING ABILITY, progress, and achievement is necessary in a spelling program in order that instruction may be efficient. The pupil must learn to test his spelling as he progresses through school. The errors that are discovered by testing must be corrected through study, and mastery of hard words should be developed through review and use. (7, pp. 54-62)

Testing indicates to the pupil the words that he knows and does not need to study and the words he does not know and must study. It shows him the degree of mastery of spelling in a weekly assignment or in a term's work. Through testing, studying and learning are individualized. Without testing, learning cannot be efficient.

An adequate testing program

A systematic testing program for normal classroom groups involves a preliminary-term test, pretests on weekly units, final tests on each week's work, tests on review words, special tests on the use of words, individual tests, and final-term tests.

The teacher may select for a preliminary test one or two words from each weekly assignment for the semester and dictate them to the class to determine the degree of ability of the class and of the members of the class on the words for the term. Such a test will aid the teacher in determining the type of method to employ.

The pretest on new words of the weekly assignment is given so that each child can identify the words that he must learn to spell during the week. The final test of the week measures the progress made in learning to spell the new words of the week. The test on the review words may be given with the final test of the week to determine the degree of mastery of the words taught two weeks or a month before.

Special tests incorporated in activities suggested in workbooks or textbooks are designed to help each child become familiar with spellings of hard words and to master hard spots of words. Syllabication and the use of the hypen at the end of a line of context, contractions, possessives, words requiring capitalization, and homonyms are examples of spellings which may be tested in specially designed exercises.

Individual tests may be given to pupils on hard words misspelled in the review test. Sometimes such tests may be administered by the teacher, but often the words may be pronounced by another child. Children may test each other in their drive to become expert in spelling. A bright child who desires to complete the work of the term early may

be tested on words of the term when he is ready so that he will be free to engage in other areas or in special activities.

A final test of the term comparable in difficulty to the preliminary-term test may be given to measure progress. Such a test which samples adequately the work of the term is of value to the teacher in learning how successful teaching has been; it is of value to the child in finding the degree of progress made during the term.

In the testing program outlined, it will be noted that every word of a weekly unit is subjected to at least (1) a pretest, (2) a final test of the week, and (3) a review test. Difficult words and words with peculiar characteristics will be tested more frequently.

This is but one of many plans for a systematic testing program. Another plan includes the preliminary and final tests of the term, a pretest of the new words of the week, a midweek test on new and review words, and a final test which includes new and review words.

Care in administering tests.

A teacher must plan even the simplest test. Children should be taught to have desks cleared, pencils sharpened, and to be ready for testing at the appointed time. A child who is habitually slow in getting ready to write may begin clearing his desk and preparing materials for testing a little before the others. The reason should be understood by the child. The requirement should be discontinued when it is no longer necessary.

The teacher should pronounce each word correctly to children who are ready to think and write. Time sufficient for writing each word must be allowed before pronouncing the next word or giving any instruction. When the pronunciation exercise precedes the pretest, the practice of pronouncing a word only once should be followed unless there is an interruption. Children, who know that only one pronunciation is generally made in testing, develop an alertness which will not be achieved when it is possible to have a word pronounced the second or third time by merely asking for a repetition of the pronunciation. Hononyms and words easily confused with other words should be presented in sentences which clarify their meanings.

Each child must be motivated to write words in the test as legibly as possible. An error due to faulty handwriting may be as confusing to a reader as one made because of inability to spell. The two types of error should be differentiated and each overcome by careful study. (13, pps. 406-412)

Developing rapport in testing

A pupil must be interested in testing. He must be taught the value of the preliminary tests, the final tests, the review tests, the special tests, and self-testing.

Every child needs training in writing tests. Attention, interest, order, good attitude, and concentration should be developed. The teacher by instruction and example should engender in the children an enthusiastic attitude toward testing. She should emphasize alertness and system. A child's attitude and procedure may be changed by a simple explanation or a kind word. Difficulties and deficiencies of each child should be recognized and taken care of individually in order that group testing may proceed systematically and without interruption.

Scoring spelling tests

The teacher may score the test papers; in general, however, to score each child's spelling-test paper is too time consuming for the teacher, and children can receive great benefit in checking their own or their neighbors' papers. Children may change papers and check mistakes from oral spelling by the teacher or by resorting to the word list in the text or workbook. Each child may check his own mistakes by listening to oral spelling or by reference to the spelling book or list. In any plan, the teacher must see to it that each paper is scored correctly. A change of scoring procedures from time to time may be helpful in promoting accurate checking of errors.

Using the results of informal class testing

Each child should use the results of his own test as a guide to individual study. One child in the class may misspell ten words in the pretest, and another only one. Accordingly, the work for each is clearly defined. The latter has one word to master, and with the right method he may learn to spell this word in one or two minutes. The former has a much greater task, a task which with definite steps of learning to spell a word should be possible of accomplishment before the final test of the week. Each child should under the guidance of the teacher develop responsibility for using the results of the tests in guiding his study.

Comparison of test results

A comparison of the results on a pretest of a unit, on the final test of the unit, and on the review test of these words two weeks or a month later indicate the degree of improvement for each child on the words taught. The improvement in spelling from the beginning to the end of the term, shown by a comparison of the scores of the preliminary and final-term tests, indicates —with some limitations— the success of the spelling program for both child and teacher.

Standard tests and scales

Standard scales have been used for surveying the spelling achievement in a school system. They have been used as a check upon teaching and learning. They have been used to measure pupil progress over a period of time. One form of a standard test may be given before teaching and a duplicate form after teaching. A comparison of results, if the standard tests are valid and if they have been properly administered and objectively scored, indicates to some degree the improvement made by the learners.

To award grades on the basis of standard test results is a questionable procedure, but to use standard scales for equalizing preliminary and final examinations can be quite valuable.

The most celebrated spelling scales are those presented by Ayres (2), Buckingham (5), Greene (8), and Bixler (13). The first gives data on difficulty of one thousand words. The second is an extension which provides difficulty data for 505 words in addition to those on the Ayres list. Greene's, the latest and most extensive, presents difficulty indexes on several thousand words. Bixler's spelling scale provides difficulty data on 3679 words. All give data on spelling for grades two to eight.

The *Morrison-McCall Spelling Scale* (14) includes eight forms of fifty words

each arranged progressively from easy to difficult and useful for testing in grades two to eight. There are several batteries of elementary school tests which have sections on spelling. Among these, the *Stanford Achievement Tests* (11), the *Metropolitan Achievement Tests* (1), and the *Coordinated Scales of Attainment* (4) have proved useful in surveying the spelling achievement of children in the grades.

One caution concerning the use of standard tests and scales should be made. A standard scale or test must contain words that are vital to written expression. Accordingly, the vocabulary of any scale or test should be checked for validity before it is used.

Dewey (16) compared a spelling scale with the vocabulary of a well-known speller and found many words of the scale not in the speller. Kenney (12) found variance between the vocabularies of five standard spelling tests and the vocabulary of a spelling text. Hildreth (9) reported a 58.3 per cent overlap of the one thousand words of the Ayres list (2) and the first thousand of Rinsland's list. (15) Results of such comparisons should be known to anyone who is using spelling scales as bases for measurement of spelling ability. However, the standard scales do furnish difficulty ratings for thousands of words, many of which are of great importance in writing and spelling.

The corrected test and learning

It is obvious that some kinds of testing are more valuable than others. Thomas Horn investigated the effect of the corrected test on learning to spell and drew conclusions based upon results obtained from 268 sixth-grade children. He stated that, "The corrected test appears to be the most important single factor contributing to achievement in spelling." His experiment showed that "in some classes the corrected test alone is sufficient for mastery or near-mastery of the typical spelling lesson by the upper third of the class." (10, p. 285) Horn's results imply that the corrected test may be used in study, and that study based upon such testings should be dynamically motivated. (10, pps. 277-285)

Self-testing and proofreading

The child must learn the value of self-testing. The *test-study* plan of instruction and the method of learning to spell a word foster self-testing and self-study. Mastery of spelling is based upon learning through testing and studying. If a child realizes that the words assigned are the words which he uses most frequently in his writing and that he must be able to spell these words correctly, he will be encouraged to test himself and to study the words he cannot spell. A pupil must learn to proofread his work and to correct his spelling in the writing that he does in and out of school. When a child notes a word which he has written and about which he is in doubt, and looks it up in the dictionary for the correct spelling, he is testing, and studying in a most effective way.

In an efficient method for learning to spell, the child learns to test his ability to visualize a word, to recall it, and to write it correctly. Such a method improves his ability to test his work.

Improvement in testing techniques and attitudes facilitate spelling proficiency. Thus, testing has a key place in learning to spell. It leads to efficient study, to the use of the dictionary, and to the development of correct spelling and good usage in writing.

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Evaluating Social Maturity

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THE CONCEPT of maturation in relation to public education is interesting many school people. There are differing ideas regarding what is meant by educational maturity and how it may be adequately appraised. Some people emphasize maturity as having to do with inter-personal relations or getting along with people. Still others consider maturity in terms of emotional developments and the dynamic aspects of social adjustment. The point of view in this article is that social maturity has to do with social copetence in terms of self adequacy in a number of different kinds of situations. This concept has been promoted over a period of years and there are a number of publications bearing on this method of appraising child development (1, 2, 3, 4, 5).

One of the obvious aspects of child development is its dependance on growth. Normal growth takes place so subtly that frequently we overlook it because we take it for granted. Actually we, whether children or adults, make many subtle accommodations to the stage of growth represented by any child with whom we happen to be dealing. We accommodate ourselves to the child's level of interest, his level of intelligence, his language level, his experience level and many other facets of growth, all of which have some social relevance. We may be specially concerned with the child's social development in terms of his more detailed personal adequacies, such as self help or self direction, or the ability to occupy himself constructively. Yet in our educational interest in the child we are likely to ignore these extra-scholastic aspects of child development because they are so seldom incorporated specifically in our conventional school curricula.

While we all are familiar with the ways in which children grow up, it is indeed difficult to say how this growth takes place or what its specific stages and manisfestations are. In the Vineland Social Maturity Scale we have a device for systematically appraising social maturity descriptively and measuring it in numerical terms. This scale conceives of social maturity in a number of different categories or phases of behavior, such as, self help, communication, locomotion, self-direction, socialization, and occupation. Each of these categories is sub-divided in respect to a number of behavior items which represent growth stages in respect to these particular phases of behavior. These items are carefully defined and selected as those which are relatively free from such variable influences as sex, environmental opportunity, religious affiliation, formal training, and the like. Each of the items of each category is standarized in terms of its own developmental growth curve, namely, the ages at which nobody performs the item, the ages at which everybody performs the item, and

the progressive ages in between these limits at which particular children achieve these particular performances.

This instrument is rather unorthodox in the field of mental measurement and falls outside the usual classroom testing procedures. The examining is by report rather than by test; that is, a well-informed person who knows the child's performance intimately is interviewed with respect to these performances by a person skilled in the technique of interrogation. This means that the child himself need not be present for the examination, but can be examined in absentia. Or he may serve as his own informant. This has many advantages which are not common to other forms of child appraisal techniques. The accuracy of the reporting is insured by the degree of skill exercised by the interviewer. An unusually high degree of accuracy can be obtained by experienced interview technique assisted by the degree of consistency which is inherent in a series of items which has a normal developmental sequence. While this method of procedure appears rather simple and is indeed quite homely, it is more subtle than this in that it requires appreciable knowledge of the facts of child development and a high degree of skill in the technique of interview. It also calls for a warm personal orientation on the part of the examiner so that good contact may be made with the informant. It lends objectivity to parent-child-teacher understanding.

It is not the purpose of this presentation to give technical details regarding the practical use of this instrument. The complete procedure of examination as well as philosophical and scientific aspects of the instrument have been reported in book form as well as in many articles (see references). What is important to bring out here is that this device does not duplicate other procedures but rather covers an interest of child development for educational purposes which is of very real concern and seldom explored. Moreover, this instrument examines not only the child but also the person who is serving as informant. Ordinarily this would be the mother or some other intimately related person for whom insight regarding the child's aptitudes and difficulties may be of significant import. In the course of the interviewing procedure the informant acquires insight and knowledge regarding the child, and this awareness frequently is of much practical value. Sometimes this serves to release anxieties toward the child on the part of mother or father; at other times it sheds light on the parent's own way of dealing with his child from the standpoint of home training, social encouragement and scholastic support. Consequently the procedure affords an indirect method of counseling parents regarding their children as well as a means of obtaining information regarding a child's difficulties and assets.

This device, therefore, provides an excellent means of making contact between teacher and parent, or school administrator and parent, because it affords an effectual situation in which the parent in incorporated in the mutual business of child appraisal. This frequently breaks down resistances or antagonisms on the part of the parent toward school officials. It means that the parent tells *us* about the child instead of our telling *him* or her. It also provides a relationship between the teacher or principal and the parent, which is much more human and understandable

on the part of the parent. The teacher is then in the position to relate the problems of classroom instruction and discipline to the home problems of management and adjustment or adequacy. The parent readily understands this and consequently is likely to become much more receptive toward a more direct type of counseling from the teacher regarding the child's educational progress as such.

In evaluating the returns from the examination, it is possible to obtain a numerical score of social maturity. This can be expressed as a Social Age, which in turn can be converted to a Social Quotient. These are comparable to mental age scores and I. Q. conversions on standard mental tests. We have a second independent method of appraising the child in non-scholastic or non-tellectual terms. The discrepancy between the child's verbal or intellectual intelligence and his social competence then becomes a means of understanding the child to much better advantage. This helps us to relate his specific scholastic abilities and disabilities, or problems of school adjustment, to a concept of the child as a whole which reveals his more comprehensive life outside the classroom. This sheds a good deal of light on the learning problems and serves to indicate areas of educability which may not have been tapped by the more formal aspects of classroom instruction. For example, the child with handicaps in language or reading may be revealed as having a special communication disability, as in reading, whereas his overall development as indicated by his social maturity may serve as a check on the measures of his intelligence in relation to linguistic learning. Since most classroom measures of intelligence are by means of group tests and involve verbal concepts, the social maturity score serves to correct possible misconceptions regarding the child as a whole.

From this point of view the social maturity scale has the advantage of examing the child more generally in terms of the uses to which he has put the learning he may have achieved in various directions. The social maturity scale measures the effects or the consequences of all other aptitudes and disabilities without measuring any one of them. For example, if the child is physically handicapped, such as crippled or visually or auditorially impaired, this will be reflected in the social maturity scale. If he is mentally retarded, this likewise will be reflected. So also will be such other influences as emotional disturbance, or scholastic disabilities, or personality conflicts, and the many other overall aspects of child development with which we are educationally concerned. This scale, therefore, is designed to make no *direct* allowances for these disabilities or special assets; rather it measures the factual outcome of all aspects of child development in terms of their capitalization for social competence within the categorical concepts which the scale includes. From this point of view the results from the social maturity scale become a point of departure for evaluating the significance of the more specialized aspects of child development such as personality, intelligence, achievement, physical aptitudes, handicaps, and the like. Moreover, in the course of the interview, much gratuitous information is likely to be obtained, because the informant in responding to the questions regarding competence is likely to add relevant remarks as to why the child does or does

not perform certain of the items required of his age.

In evaluating the results of the social maturity data, it is important not to lose sight of the categorical significance as well as the total score. The scale provides a description of aptitudes and disabilities in respect to these different phases of behavior as well as a total score for their entirety. Frequently, the total score is less important than the descriptive information from which it is obtained. We gain, therefore, more personal insight regarding the child's assets and disabilities, his drives and his defenses, and we see him as a total person relating to his total environment. This eases our own anxieties growing out of our professional concern for his educational and social success.

Since each item of the social maturity scale has been standardized in terms of its age development the performances on these items become significant as a schedule for overall child development. The scale as a whole is, therefore, informing to the teacher who is concerned with the general principles of child development and the instructional capitalization of growth. Even if the teacher never examines a child directly, she will be assisted by familiarizing herself with these specific item stages of child development and the individual differences which she encounters in her daily teaching. Each item is standardized developmentally for boys as well as for girls. The validity of the standardization is insured by a double check using the scores of significantly mentally retarded children to guarantee the significance of the performance. It is not appropriate here, to go into a discussion of these details, but the person concerned will wish to do so from the material already published.

In addition to this significance for child development, the social maturity scale provides a guide for curriculum development which is not ordinarily considered in the scholastic aspects of education. But in the case of children with severe mental, physical, or social deviation, the social maturity scale provides an outline of educational objectives and values which are of the first importance in addition to the scholastic objectives of education which most of us normally pursue, often without specific regard to their ultimate social capitalization. Indeed, in the development of this particular scale it proved very difficult to show how the scholastic aspects of education were really capitalized for social progress. While this curricular aspect of the scale may not be very useful for "normal" children it is of special significance in the various fields of special education or in the case of individual children for whom adjustment programs are desirable.

The purpose of this presentation is merely to call attention to this instrument and its versatile uses. It is not feasible here to justify the somewhat dogmatic statements made above, nor is it feasible to go into detail regarding the many phases of child development which are revealed through the use of this instrument. Nor is it even immediately desirable to show the relationship of this instrument to other types of classroom tests and scales in the field of total child appraisal. Rather it is the intention to bring this instrument to the attention of those who might not ordinarily be familiar with it because of its relatively unusual character in the

field of mental and educational measurement. The interested person will wish to review the references below which are included as part of the informational aspect of this presentation. These sources help not only to display the scientific value of the instrument, but also give aid to some particular direction in which the reader's interest may lie. The more comprehensive bibliographies contained in the book publication systematically indicate the many directions in which this scale can be, and already has been found valuable.

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CHILDREN'S BOOKS

Reviewed by PAUL ZANKOWICH
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THE EMPEROR'S WHITE HORSES. By Vernon Bowen. Illustrated by Hans Kreis. N. Y. David McKay. 1956. $2.75.

The Spanish Riding School of Vienna is one of the oldest and most unique institutions in the world, and its famous Lipizzan stallions are admired by all who know horseflesh. In this story, young Franz Hofer sets out on a hopeless search to find his parents who were seized by Hitler's secret police. The Tyrolean lad finds, instead, his cousin Willie, a stableboy at the Spanish Riding School. The story tells of danger that beset the school in the last days of World War II and how our General Patton saved the Riding School for Viena and for the world.

—PAUL ZANKOWICH

FROM HIGH SCHOOL TO A JOB. By Adrian A. Paradis. N. Y. McKay. 1956. $3.50.

This is an extensive and comprehensive review of job opportunities in industry, government, social work, and other fields designed for high school youngsters who do not intend to go to college. The facts indicate that well over half of the high school graduates go directly into full-time employment and that high school drop-outs are already there. Without proper guidance, youth may have a stormy and frustrating time making the necessary vocational adjustments. In addition to the job opportunities presented in this book, there are numerous case histories and an extensive bibliography.

—Paul Zankowich

THE CHILDREN'S ILLUSTRATED ENCYCLOPEDIA OF GENERAL KNOWLEDGE. N. Y. Philosophic Library. 1957. $4.95.

Thirteen experts in their respective fields contributed to this one-volume storehouse of knowledge for children. Profusely illustrated, the volume includes terse explanations, descriptions, and information on such topics as peoples, animals, astronomy, books, history, geography, art, science, inventions, theatre, great men, plans, flags—in short, all phases of life and activity about which children have question. The textual material is very brief but to-the-point. The volume was compiled in England and hence most references to such items as history, plants, and the like are British. American youngsters may find this confusing or disappointing.

—Paul Zankowich

The Teacher *and* Personality Assessment

By ERIC L. THURSTON

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IF A CHILD has the sniffles and sneezes, a parent or teacher suspects that the child has a head cold. The child's contact with others may be restricted to prevent his harming others by giving them the cold. He may be kept inside and his environment restricted. Some form of medication may be administered as treatment. This treatment will be effective in most cases.

In spite of the precautions taken, the child may develop a more severe cold or pneumonia, or the cold may persist. The child is then taken to the physician for diagnosis and treatment.

The physician starts by asking the parent what is wrong and asks the child how he feels. He examines the child to find out what is causing the symptoms. He may discover the trouble with a few tests and prescribe a simple treatment. He may, however, find that something more complex is involved. If he suspects asthma he must give a series of tests to find the causes. His recommendations as a result will be more complex, requiring dietary controls, medication and possibly a recommendation that the child be moved to some other climate. If, on the other hand, he diagnoses a persistent cold, he may feel that the child's resistance is low and prescribe vitamins, tonic, and cold shots along with suggestions about clothing, temperature control of the home and restriction of activities so that the child's ability to resist colds in increased.

The child who fails to achieve at the level of his ability; the child who is aggressive, disrupting the class and taking much of the teacher's time; the child who never volunteers, has no friends and constantly daydreams; and the child who constantly complains of aches and illnesses when faced with undesirable tasks—all indicate symptoms of personality maladjustment. Some of these symptoms, as in the case of the cold, may be readily observable and give clues to the troubles of the individual. Some, like a cold, will disappear without any treatment. The symptoms may be indicative of more severe trouble than supposed, as in the case of asthma. Moreover, many symptoms are not apparent and may be disguised by various escape mechanisms which make the assessment of personality difficult.

The causative factors which produce these symptoms are even more complex and harder to discern. In general, the diagnosis of these causative factors is a problem for the specialist. Nevertheless, the teacher has an important responsibility in noting the symptoms, documenting possible causes, and referring children who have severe adjustment problems to the proper specialist. The fact that the teacher is able to identify that the child has a problem is the first step taken toward better adjustment for the child. The teacher may, through an understanding of the prob-

lems of the individual, modify situations which arouse the maladjustive behavior and do much toward ameliorating the problem.

Some children will solve their own personality problems, as the cold sometimes disappears without treatment. Personality problems of others may require slight modification of the environment and treatment of the child. Other cases will require complete diagnosis by the specialist and exhaustive treatment which will build up resistance as well as cure the problem. But it all must start with an awareness of the problem, and an understanding of it, and action to correct the causes of the problem.

Classroom Techniques of Assessment

Because of the complex nature of personality, no one technique of assessment should be used exclusively, but rather a combination of available measures, observations and ratings should be employed to portray a picture of the personality pattern of the individual. Not only are more data obtained by the use of several techniques, but the employment of several methods should tend to eliminate some of the errors which might operate if only one type of assessment is used.

Fortunately, methods are available which will enable the teacher to obtain data concerning personality from the subject and his peers which can supplement the results of her own observations. This three-front approach consists of methodical observation by the teacher, self rating by the subject, and ratings by peers through use of sociometric techniques. After obtaining the data from these three sources, the teacher should have some awareness of the personality make-up of the various individuals in her class. With this awareness, the teacher will be better able to provide a classroom atmosphere which will permit development of better adjustive behavior.

Methodical Observation

A recording of acts of commission or omission of behavior which significantly deviate from the "normal" performance is an important beginning in any evaluation. Documenting these symptoms should indicate the maladjustive action observed and, as far as possible, the situation and conditions during which the incident occured. The regular school day with its variety of different activities in classwork, recesses, lunch periods, activity periods, etc., provides opportunities for observation of performance and social relationships under varying conditions. Documentation over a period of time will show clusters of behavioral notes on some children which follow a fairly consistent pattern, denoting personality problems. Minor infrequent notations should be expected among pupils with "normal" personalities.

If the child has more than one teacher, similar reporting of deviations noted will increase the amount of descriptive material available and may tend to validate some of the already recorded notations. Talks with parents provide information of great importance in understanding the child, especially the insight into the conditions existing prior to the misbehavior. Parent conferences also can be used to develop an awareness of the problem in the parent. The parents may also give important information in explaining why they feel that the misbehavior occurred. Case histories obtained from parents and previous teachers are essential in the case of the deviants. School cumulative records may contain pertinent information.

Disparity of results may appear in

the reporting of different teachers and the parents, because the child may react differently at home from how he acts in school and in a different manner for different teachers. A child reacts to personalities, and adjustive behavior is usually more appropriate in contacts with the adult who has a well-adjusted personality. Additional conflicts between observation records may appear which are due to "halo effect" and differences between observers in their understanding of the meaning of the actions.

The mechanics of recording the information gathered and classifying it for use can be developed in accordance with the desires and understanding of the individual teachers. A complete coverage of the cumulative behavior type journal may be found in *Helping Teachers Understand Children* (2). A more concise method of recording and classifying "critical incidents" which provides a cumulative record for easy reference is discussed by Flanagan (3).

Self Ratings

To supplement the observations made by the teacher, many prepared "tests" are available which enable the subject to report on various facets of his personality. These consists of check lists, rating scales, interest tests, questionnaires, temperantent records and personal problems check list. Examples of some of these tests are *The California Test of Personality, The Rogers Test of Personality Adjustment, the Minnesota Multiphasic Test* and the *SRA Youth Inventory*. No one test gives a complete picture, but their use with other information is significant.

Validity of this type of testing is based to a large degree upon the willingness and the ability of the child to give the true responses to the items. A child with personality problems may not understand himself well enough to respond adequately. A child may also rationalize and try to present a better picture of himself than is accurate. It is, however, desirable to obtain the viewpoint of the child concerning his own reactions, likes and dislikes, interests, attitudes, beliefs and feelings about himself. No assessment can be complete without a self-rating

Sociometric Techniques

Analysis of a child by his peers reveals information which may not be uncovered by observation or by self-rating techniques or which may augment the findings of the other methods. Questions are asked in the class concerning: "Who is your best friend?", "Who is the biggest bully?", "Who is the most obedient person?", "Who would you choose to help you with your homework?". Questions can be devised to discover pupil reactions to other members of the class in various situations according to the information desired. Having the whole class react to the questions gives a more accurate judgment and eliminates some of the bias that might be obtained in relying on the judgment of only one peer. Considerable consistency should result. Temporary influences may operate, but a repetition of the same questions at a later date will check on the reliability of the children's reactions.

A clustering of responses around the names of a few individuals indicates the possession of attractive or unattractive personality traits, depending upon the questions asked and the nature of the peer group concerned. If some children receive no responses on favorable questions such as best friend, this, too, is significant.

An excellent device for easily record-

ing this material and collating it for use is described by Bonney and Fessenden (1). Suggestions are also given for using results in groupings for improving social adjustment.

From the collection of data obtained from the three sources of self, peers, and teachers, those children who deviate from "normal" should be apparent and the general areas of their personality difficulties should be indicated. Although some seemingly contradictory results may have been obtained, there should be a high degree of agreement and consistency in the data. Those children whom the data indicates have severe problems need more complete diagnosis from a specialist who can more adequately analyze the personality factors and can search for the causes and make recommendations for treatment to correct the difficulties.

Assessment by the Specialist

The trained specialist has many means at his disposal for more adequately assessing the personality pattern of the individual. He will use the information presented by parents and teachers and decide which techniques to use in further evaluation. As he obtains results, he will use what other methods are necessary to obtain all the necessary information. Some of the following techniques might be used.

Projective techniques are able to evoke a deeper expression of personality through the individual's interpreting a stimulus based on his own frame of reference. An analysis of the responses gives the trained examiner a picture of the personality of the child without the child's awareness of what implications are derived from his responses. Some of the projective techniques in general use are *Word Association, Rorschach* (ink-blot) and the *Thematic Apperception Test* (pictures).

Another method is the analysis of controlled or free-play periods in which the choice of toys and the play activity with these toys indicate personality involvements.

Specialists may also use psychoanalytical procedures with or without hypnosis or drugs to get at the deeper seated causes for personality abnormalities.

Summary

Personality assessment can be done by the teacher using a threefold approach of observation, self-rating by the child, and sociometric reports by the peers. Corrective action can be taken to permit more effective adjustment in classroom situations, but cases that seem to be complex and severe should be referred to specialists for analysis and recommendations for treatment. An awareness and understanding of the personality structures of her pupils and appropriate reactions by a well-adjusted teacher will do much toward improving the personality traits of the individuals in the classroom.

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2. Commission on Teacher Education. *Helping Teachers Understand Children*. Washington: American Council on Education, 1946.
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The Facts *of* Life

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TO DO A good job of teaching, you have to know the facts of life. Not only the usual facts. But the laws, if you will—that is a strict firm word—that governs what youngsters must do because they are human, because they are alive, growing. These are the facts of life that have the greatest significance for those of us who live with children, parents and teachers.

There are many such facts. Research uncovers them. But they stick out and show in youngsters' behavior; teachers and parents uncover them too. We become aware of them from listening, watching, seeing what goes on child after child, year after year. The more you read, the more you see, the more you come to know: This is what they are like . . . . this is how they have to behave . . . . this is what they can do and this is what they cannot.

These are controlling facts. No youngster decides: I will be this way. His bones decide for him. His nervous system does. His whole human heredity makes the behavior imperative. There are areas of freedom and of free will. There are points where will-power and determination can make the decision. There are many instances where choice enters in—a youngster simply wants or prefers a certain path of action. And instances where education is the answer— a child has been taught to act a certain way.

But a whole deep powerful part of life is blocked off from persuasion, fenced off from arguments, untouchable by lures, even unaffected by punishment. These ways of acting are bred into the person, an unchangeable part of his being. These are the facts of life we have to know about, and face, and make our peace with.

We ignore such facts at our peril. Disregarded, our teaching cannot get over, our efforts cannot take, we work in vain. We ignore such facts at youngsters' peril. The laws disregarded the children pay a price which can be painful, a price ranging from steady discomfort to a damaging sense of unworthiness.

One such fact is that *each child preserves himself.* He seeks, first and foremost, as a matter of survival, the nourishment he has to have because he is a human. Food? Yes. And sleep and air. But humans need other kinds of sustenance as well: love, respect, attention, acceptances, a sense of growing and achieving, the feeling of being needed . . . .

Call this their psychological food. It comes in many different packages. But you can sum it up like this: A child has to feel good about himself. He has to have a reason to be glad he is who he is. He must feel good, and then he can be good.

Fortunately most of us get enough of what we need to feed on—physical stuff, the more intangible psychological

vitamins. But this may be unfortunate because it stops us from seeing that humans do not die easily. We fight for life, when need be. Most of us get along sufficiently well so that life is not a battle. But the fact is always there: We will preserve ourselves, if we have to. Good ways or bad, nice ways or not, approved, disapproved, we will strive to get what we have to have.

This effort always comes first. We cannot give ourselves to other jobs at hand, until it has first been reasonably well settled. This rounded self-preservation—not food alone, not just water and air—is a built-in instinctive first "choice."

Another key factor is that *each child acts his age*. A youngster cannot move far beyond the time he has had in which to mature. The human is not unlike our seasons. Six months into the year and the days will be warm; six months further and the snow falls. Temperature and precipitation follow their appointed rounds, not free to change to meet individual desire. Just so the human moves and changes, and in all of his capacities. Six months into life and certain behaviors have to take place. Six years and the old ways are sloughed off. New behaviors occur, compelled by the fixed orbits of growth and doomed in turn to be replaced.

We might well wish for a different child before us, just as we often wish for a sunnier day or for rain gently falling. It might be better to have a child less active, more self-controlled, better able to remember, more capable of enthusing about symbols and generalities or, in a hundred other ways, better able to take what we want to teach him, But, just as everyone "complains about the weather but no one does anything about it," so too, no one can change the child's basic underlying physiological structure. This is a determinant of how he will think, what he can respond to, what will excite him and what will leave him cold.

There is one consolation, and in it the challenge: That every year, like every season, has its uses. Always there are things youngsters *can do*. Always, even in infancy. Never is there a useless period in growing, a stage just for marking time. Nor is there ever a mortgaged period, a time promised for tomorrow, no good now except as it gets the child ready for something yet to come.

At every moment there are experiences, rich and educationally significant and worthwhile in themselves, which children have grown enough to utilize. But we have to be nimble enough to provide them. We must do the adjusting—the child cannot. Not because he is lazy. Not because he does not try. And not because of willfulness and stubbornness. Because he is human, and this is a fact of life.

The consolation and companion challenge exist too with the human search for satisfactions. These needed nutrients cannot come to children out of a vacuum. There is no separate isolated place to which children "go" to come back filled. There need not be—there cannot be— a wasted waiting time while youngsters off somewhere, get what they have to have. The food for self preservation— the normal diet and the make-up foods—comes to children through the daily experiences of living with people, working together, sharing life.

But again, we must be the nimble ones. The living can be good living, the kind a school can be proud of. But we

must shape that living and guide it so there is a steady flow to certain youngsters of the special kinds of vitamins that they need. The flow cannot be left to chance. A mature adult, glad to see youngsters get what they need, plans carefully with individuals in mind.

This is to say a third fact of life: *Each child is an individual . . . .* different from all others, unique and very special. He is an unusual mixture of his heredity, of his past and present living. Nothing identical has ever existed; nothing identical ever will. He may be almost like many others; he will share many things in common. But—this is the wonder and the glory of life—he is himself, *different.*

The whole setting of the teaching job lures us into seeing people in their commonness. We teach children in groups. Our classes are large. We are teachers, not tutors; group workers, not individual counselors. But the whole set of the human insists: See *me* in *my* uniqueness.

Fortunately there is an important consolation here too. Youngsters do not ask for perfection from us. They would need perfection, the finely exact adjustment, were they inanimate. But these are facts of *life*. The child is working too: to get the satisfaction he needs, to act his age, to be himself. He asks from us, not super-human skills, but very human effort. With a decent try on our part, he will grow well. When we do all that we can he is in there trying too, and he will make out.

BOOK REVIEWS

THE READER'S COMPANION TO WORLD LITERATURE. Edited By Lillian H. Hornstein And Others. N.Y. Mentor Books. 1956. $.50.

This is a guide to the enjoyment and knowledge of immortal masterpieces of writing, from the dawn of history to the present. From Abelard to Zoroaster, it has entries on non-literary figures like Freud, Marx and Darwin, who have affected the writers of their own and subsequent periods. The volume covers the classics of Greece and Rome and the Orient as well as the great literature of the modern age.—W. P. S.

COSTUMES AND STYLES. By Henry Herald Hansen. N. Y. E. P. Dutton. 1956. $5.95

This beautiful and effective book traces the evolution of fashion from early Egypt to the present. In addition to a lively text, there are illustrations which comprise some 700 individual figures in full color. This is an excellent reference book for those working in our schools and colleges in the fields of art, fashion illustration, home economics, the dramatic arts, and in education for the apparel industries.—W. P. S.

THE TEACHER AND THE CHILD. By Clark E. Moustakas. N. Y. McGraw-Hill. 1956. $4.50.

This is a unique, simple, and very effective account of personal relationships and interaction between teachers and children in the classroom. The range is from kindergarten through high school. It is the basic theme of the author that the development of the right kind of relationship in the classroom can make teachers more effective and children better able to achieve their potentialities. The personal interactions presented were gathered by ninety-two elementary and secondary school teachers in four school systems. Throughout, the mental hygiene approach is stressed as a way of gaining insight into the meaning of children's behavior. An excellent presentation for those interested in child growth and development.—W. P. S.

Intelligence Tests *and* Children's Abilities*

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DESPITE THE fact that psychological tests to measure intelligence have become a familiar part of the educational scene, there never-the-less remains an aura of mystery about them. Many persons do not understand just what they are designed to do, much less comprehend their contents. It is the intent of this brief article to set forth in simple, nontechnical terms, what sort of information can be obtained from intelligence tests. By these means we may be able to cast in perspective what they reveal about the intellectual characteristics of children.

Actually, of course, there are several different kinds of intelligence tests, but they fall into contrasting groups. In the first place, tests may be distinguished by what sort of ability is measured. In this sense, we can identify tests of *achievement,* which assess what a child has learned in a particular course of study, such as grammar or geography; tests of *aptitude,* by which one tries to discover what programs of study a child is best suited for, like mechanical training compared to language; and tests of *general intelligence,* which provide a cross-section of the range and quality of the basic mental components needed to learn school subjects. Each of these kinds of test is useful, but must be used in an appropriate way. We shall be concerned, here, only with the third type.

Tests can also be classified according to whether they are *verbal* or *performance.* The former are mainly of the question-and-answer types, whereas the latter require the child to manipulate objects or materials, although not necessarily without demanding language; for instance, instructions may be given orally. Many tests include tasks of both kinds; in fact, it is sometimes difficult to differentiate verbal and performance aspects of the same item. The distinction may, perhaps, be made in terms of what kind of ability it is mainly desired to measure, words and their proper use in the former case and nonlanguage functions in the latter.

Finally, tests can be divided into *individual* and *group* forms, where individual tests demand a personal relation to the examiner, and group tests merely require a single administrator for several or many children. Of necessity, group tests are largely of paper-and-pencil character.

Our discussion will center on verbal tests of general intelligence, but will include examples of both individual and group tests. We shall confine ourselves

*Dr. David Crowell kindly read this paper and pointed out that the reader should keep in mind that the development of intelligence involves complex changes from year to year. An important factor is neuromuscular development which is not discussed here (but cf. Munn, 3).

to the age-range of six years to 12 years.

Before taking up the things measured by tests, it is essential to clarify two more points. The first has to do with the test score, because there is often confusion between the so-called IQ (intelligence quotient) and the brightness of a child. The score obtained on a test (that is the number and variety of tasks which a child can do or "pass") gives a measure of his brightness. Thus, regardless of his age, if a child can count to 13 he has a certain degree of ability; some children of five years can count to 13, others of six years can do this, whereas still others cannot count to 13 until they are seven. In all three instances, however, they have the same degree of counting ability *insofar as the task of counting to 13 is a measure of this ability*. The IQ, on the other hand, is a means to state what a child can do in comparison to what is expected of a child of the same age. It is simply a device for relating the test score to the age of the child, and employs for this purpose the notion of mental age (MA). For example, the psychologist ascertains what six-year-old children can do and assigns to this performance a mental age of six years. By dividing MA by CA (chronological age) and multiplying by 100 to remove decimals, an IQ of 100 would be obtained in the case cited. Since the typical child is expected to have a brightness appropriate for his age, an IQ of 100 is regarded as average. By the same token, if a child's test score is that of a six-year-old (that is, he has an MA of six) but he is actually only five years old, he would be compared with other children only five years old; his IQ would turn out to be six divided by five (times 100), or 120. Our discussion will concern itself with mental age, rather than IQ.

The second important distinction is that between *ability* and *capacity*. Tests really give information only about what a child actually does in the test-situation, not about what he could do. If capacity is regarded as potential, in other words, the test can only show it by inference. That is, we assume that a child who makes a higher score probably has a greater capacity, but this is strictly a guess. It works out fairly well in most cases, but there are numerous factors which may make the gap between capacity and ability sizable. These include the skill of the examiner, temporary or deep-lying emotional states of the child, lack of effort, sensory disability unknown to the examiner like deafness, and inadequacies of the test itself. It should be remembered, then, that our discussion focuses on ability, and can be interpreted as pertaining to capacity only to the extent that tests provide meaningful guesses about potential.

Abilities Measured by Tests

The clearest fashion in which to conceive of what tests of general intelligence measure is to identify the sorts of ability required to master schoolwork, but attempting to distinguish from these the skills assessed by achievement tests. For example, if we wished to find out how much grammar a child knows, we would administer an achievement test; a child who has studied grammar can be expected to make a better grade than one who has not, although both might be equally bright. It is true that in the early school years, at least, when mental abilities are rapidly changing, there is usually a close relation between what has been learned and ability. The association would be especially close for children in school.

There has been a great deal of research directed towards the discovery of general abilities which determine performance on intelligence tests. The technique of factor analysis has been the most informative of the approaches to this end, yielding for various combinations of tests a variety of names for these general abilities (see Munn, 4, Chapter 3, for a clear, concise discussion). For our purposes, the abilities most obviously assessed by tests appropriate for the primary grades may be called verbal understanding and skill, memory, spatial relationships, perceptual and observational ability, attention, numerical ability, inductive conceptual ability, deductive conceptual ability, and reasoning.

The problem of constructing an intelligence test is to find tasks which involve the sorts of abilities it is desired to measure, while at the same time giving every child as nearly as possible an equal opportunity to display his abilities. Since the best tests have been found to meet these requirements fairly well, we shall accept them as they stand. However, it should be pointed out that certain kinds of important abilities are usually *not* measured by tests. Of especial significance is creativity in its diverse forms.

Before proceeding with some concrete examples of abilities measured by tests, it is worthwhile to state several principles pertaining to the interpretation of test results.

1. *Multiple abilities.* Every test item, even very simple ones, call upon a complex pattern of performance. One cannot link any item only with one ability, even when it is designed primarily to assess one aspect of intellectual functioning. Consider, for example, a "memory" item, like repeating digits. Here, in order to pass the test, the child must understand the examiner's questions, pay attention to what he says, and have sufficient experience with numbers to recognize them and use their names.

In order, therefore, to understand intelligence tests it must be realized that complex patterns of performance are involved in every case. It is not a matter simply of summing up a series of discrete functions, but of obtaining a picture of the interplay of numerous abilities.

2. *Quality of performance.* It is essential to interpret not only the level of ability, but also the manner in which the test-items are handled by the child. It is ordinarily not possible to do this in group tests, but it is very important in individual tests where the examiner is in a position to study the child with considerable intimacy. The seemingly precise and quantitative character of tests, particularly in scoring, makes it easy to overlook this point. Not only does observation of how items are dealt with provide insight into such matters as alertness, ease of comprehension, organization of material, and efficiency, but it may also yield clues to why performance is inadequate (7). Failure may be occasioned not only by conditions previously mentioned, but also not so much for lack of ability as of difficulty in putting ability to effective use.

3. *Approximation.* Test scores provide information which enables the examiner to estimate the child's mental ability, other things being equal (i.e., there being no considerations beyond the test-situation). Thus, there is no magic in the test results; they are merely to be interpreted as estimates of a person's theoretically conceived ability.

Intelligence in Relation to Age

In another place, we have briefly discussed what experimental research reveals about the development of childrens' thinking (6; see, also, Jersild, 1, for a broad treatment). It is our intention, now, to look at intelligence tests in the same fashion to show what is expected at different ages. The two approaches are complementary, the former working from the ability to the child (for example, devising memory tasks and giving them to children of various ages), the latter proceeding from the child to the task (for instance, sampling children of a given age to see what tasks they can handle.)

Three general principles help greatly to understand how test-items differ with age, as follows:

1. Children during the school-years possess basically the same abilities which characterize older children and adults (see Munn, 3, for a discussion of this point.) As a consequence, similar kinds of items occur at all age-levels. It must be emphasized that we are not stating that children of all ages can do the same things, but rather that they can do the *same kind of things*.

2. Abilities vary with age primarily in terms of quantity and complexity. That is, older children differ from younger children chiefly because they can do harder tasks and more tasks. Even though younger children are more concrete, they show the beginnings of abstract behavior (see Vinacke, 6, for other illustrations of age-differences.) Our discussion over-simplifies the situation by ignoring distinctions of this sort. The developmentally oriented person, of course, quite properly considers them significant.

3. The most important variations introduced into tests at older ages stem from increased experience and longer exposure to education. Thus, arithmetic operations, aside from counting, occur at the upper ages, but not at the lower.

With these points in mind, test-items can be illustrated in sequential fashion. We shall use items very similar to those on such standard tests as the Stanford-Binet (5) and the Kuhlmann-Anderson (2), but converting them into forms which do not actually occur on the tests. Since our examples have not been standardized, they cannot substitute for items actually used in the tests. Furthermore, as stated above, each task calls upon many abilities, in addition to the one upon which attention is fucused.

Memory. In this area, tests tend to change from one age to the next mainly in difficulty. Illustrations are as follows:

Age 6. Short sentences like, "Mary likes to go to the store with her mother." The child is asked to repeat what he has heard.

Age. 8 Longer and more complex sentences like, "Eddie rode his bicycle to his aunt's house to show her his new hat."

Age 10. Brief stories, such as an account of a day at the beach. The examiner asks questions for the child to answer regarding the title of the story, who went to the beach, what games were played, what Alan found in the sand, etc.

Age 12. Repeating five digits backwards. In contrast, at age 7 the child might be asked to repeat 3 digits backwards.

Numerical. Again, difficulty varies with age.

Age 6. A series of simple figures, such as stars or triangles. The child is asked to place a dot in a box for each

figure. At this age, a child would be expected to get as many as 13 correct.

Age 8. Disarranged dot patterns. The child is asked to count irregularly scattered dots.

Age 10. Block-counting. Pictures showing piles of blocks are shown for the child to count.

Age 12. Number series. In this test it is possible to construct items which range from very simple to very complex. By this age, a child is expected to solve tasks such as the following:

"Cross out the number which does not belong.

2	6	10	12	14
9	8	7	5	3

Conceptual abilities. In this type of task a child is required to apply his experience to situations where a generalization provides the basis for a solution. He may either have to derive the generalization itself, from specific instances, or he may have to find instances which fit the generalization.

Age 6. Opposite analogies. "A dog is fast; a snail is _____."

Differences. "What is the difference between a banana and a carrot?"

Riddles. "What has a head but can't talk?" In this task, the child might be presented with a picture of a chair, a thimble, a pin, and a boy.

Age. 8. Opposite analogies. More difficult items, like "Mountains are high; valleys are _____."

Similarities. "In what way are a chair and a stool alike?"

Age 10. Still more difficult analogies. For instance, the child might be asked to draw a line under the two which are opposites: small room broad orange narrow."

Or he might be asked to draw a line under the two which are necessary to the first word:

"School: recess pupils spelling desk teacher grade."

Age 12. Classification of three things. For example, the child might be asked to place a dot under the three that belong together: "cube square sphere cyclinder figure round."

Verbal abilities. Many psychologists regard vocabulary tests as the best single measure of general intelligence. Such a test is especially easy to construct so that it covers all ages by increasing the difficulty of the words. At age 6 the child might be expected to define words like "apple" and "drawer"; at age 8 words like "howl" and "slice"; at age 10 words like "program" and "painter"; at age 12 words like "inevitable" and "gambler."

Other typical tasks are as follows:

Age 6. Story completion. For instance, the examiner tells a brief story and asks the child to put a dot under one of four objects, the name of which best finishes the tale.

Age 8. Scrambled words. The child is asked to give the words which the letters make: "O-B-X"; or "B-D-R-I."

Age 10. Abstract words. The examiner asks, "What do we mean by 'hope'; by 'joy' ", and so on.

Age 12. Disarranged sentences. The task is to put the words in the correct order: "Birds fence on the sat five"; or "Up beach onto shells carry waves the."

Reasoning. Tests typically introduce a greater number of tasks calling upon problem solving abilities at the upper ages. In fact, at the lower levels of the test, items can be designated better as calling upon comprehension; the chief difference is the greater differentiation

and organization of intellectual processes. At age 8 problems may contain simple clues on the basis of which a child makes an inference. At age 10 verbal absurdities may be presented; for example, "What is foolish about this? Some boys were playing cowboys in the yard. When they got hungry they picked some carrots off the tree." At age 12 more difficult and complex problems would be given.

Spatial ability. It is difficult, in many instances to identify tasks which emphasise this function, but items which may be considered typical include pencil mazes, matching of parts of figures, directional orientation, etc.

Conclusion

Thus emerges a picture of the kinds of things children can do during the early school years. Their mental abilities increase with age because they can deal with more difficult and complex tasks which call upon an increasing control and organization of intellectual functioning. In comparison with adults, their abilities are less highly developed, rather than being fundamentally different. Perhaps the chief changes which might be regarded as qualitative, rather than quantitative, are an increase in skill in the use of language together with increased differentiation and efficiency in reasoning. Accompanying these changes there is a shift from predominantly concrete behavior to a greater degree of abstract performance. In general, the variation in intelligence test items from year to year appears to agree quite well with what would be expected from research with children (6).

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A Program *for* Pupil Participation

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THE basic concept of American democracy rests upon the fundamental assumption that virtually all of the people are capable of acquiring whatever knowledge is necessary for the intelligent solution of the nation's problems, and, that, in giving constant and continuous attention to their civic duties the people will apply this knowledge critically and to good effect. The chief responsibility for its fulfillment devolves upon the schools, and the faith that the American people have in the success of democracy reflects their confidence in public education. Educating a pupil for successful living in a democracy can best be accomplished by having him live in a setting which most closely resembles a democracy. If a student spends his school life in a situation run arbitrarily, by a principal on the one hand, or by a select few of the faculty, on the other, one cannot expect that student to exercise his civic responsibilities well when he becomes a member of our democratic society. Therefore, a program of pupil participation in planning and executing the affairs of the school is necessary.

Before any changes in school procedure are attempted, several preparatory steps are necessary. Both teacher and principal must have a clear conception of this philosophy of education and a knowledge of psychology, which together must guide methods and procedure in order to obtain the desired outcomes. Also, the situation already prevalent in the school must be carefully studied in order to determine how much the students are already participating and in what fields greater participation is feasible. After having surveyed the situation, the following questions should be considered.

1. What plan of activities should be considered to give greater practice in citizenship?
2. What outcomes do I expect, or what attitudes do I expect to instill in the students?
3. What are my long-term objectives?

The following may be of value in deciding what the value of a pupil participation program really is.

1. Teach the individual to be sensitive to the rights and needs of others, with both tolerance of, and appreciation for, the minority groups of which one is not a member, or with which one is not in agreement; for only as this concept becomes operative, can democracy become a way of life and a way of thinking.

2. Teach the child to understand the general nature of the more significant present-day social, civic, and political institutions of the society in which men live.

3. Build in the child the tendency to assume responsibility commensurate with his talents and understanding in all social relationships within the school.

4. Build in each child the tendency to associate himself with groups organized for social betterment in one form or another.

5. Build in each child a tendency to discriminate between issues of general social welfare and issues involved mere-

ly with the welfare of selfish interests.

6. Give each child a way of life characterized by a balance between the individual's sense of essential freedom and the larger welfare of humanity. It is in this balance that democracy is found.

7. Give the child a tendency to assume voluntarily a share of responsibility for preserving, exemplifying and transmitting attitudes and ideas which he believes essential to social welfare.

8. Give the child an understanding of the essential functions and contributions of democrative government and its operation both locally and nationally, as well as a tendency to discharge the political duties of good citizenship.

9. Build in each child the optimum tendency toward leadership consistent with his abilities.

I realize that the foregoing constitute a large order to fill, but as Carl Schurz once said,

"Our ideals are like the stars: we never reach them but, like the mariner on the ocean, we guide our courses by them."

Whatever may be tried in the way of pupil participation should be carried out by the students in so far as possible. It should be a real project with opportunity for purposing, planning, executing, and judging by the students themselves. Its success will depend largely on a wise selection of leaders. Eventually, every child in the group should have some opportunity for leadership. After the activity is initiated, careful guidance on the part of the teacher is necessary to insure that the work shall proceed effectively and with unified effort. Each child should have a fair chance to do his part and the teachers should make certain that the leaders are fair and courteous toward all.

Among the successful citizenship activities which have been tried are the room civic club; the all school organization under the leadership of a council, senate, or assembly; Junior Red Cross; Boy Scouts; reading activities; health activities, etc. A little detail about the student council follows.

First, the plan for a student council must have the support of those for whom it is designed. No plan has a chance for success unless it has the support of a solid majority of the students and faculty. The more a student feels that he is represented, the more interest he will have. The faculty should also be represented. The Council should represent a genuine co-operative effort upon the the part of both the faculty and the students.

Secondly, the Council must have clearly defined powers, privileges, and responsibilities. Limitations and checks should also be provided. The principal, being directly responsible for everything that happens in the school, should have the power of veto in all matters.

There are four main types of councils: one that represents specialized interests, such as clubs, associations, particular organizations, or activities. This plan is not good because the pupil represents not his school, but his organization; the number of students represented is relatively small; the standards of democracy involved are very few.

A second type represents the school at large. This is a fine type and the educational opportunities are wide in scope. The only objection to this type is that unless careful planning is done, the Freshmen and Sophomore classes, being usually larger, will have the largest representation. It might be well to allow larger proportional representation for the Junior and Senior classes.

The third type of Council is represented by school, alumni, and the Board of Education. In my opinion, this type of Council is the least desirable, as too much power may be vested outside the school and the evils may outweigh the benefits of financial and other support derived from the alumni and the Board.

A fourth type of organization is one in which honor students automatically become members of the Council. This is not good for it tends to foster a feeling of superiority on the part of the honor student and is apt to kill the interest of the less intellectually fortunate individual.

Type 2 seems the most practicable in the light of the democratic concepts to be fostered. To set up a Council in a new situation, the following ideas seem to be necessary. First, make sure that all home room units understand that the Council officials are to be chosen on the basis of the competence of the student, the integrity of his character, and the degree of leadership and initiative that he possesses. It is best to allow the Council to choose their own officers as they will have a better understanding of the qualities that are needed for a particular office. They should also have the privilege of appointing their own committees.

The fully developed council should be responsible for promotion and coordination of as much of the extra-curricular activity as seems feasible to the principal and the faculty.

When the new Council has gained a little experience, a Constitution, embodying the purposes, powers, rights, privileges, and organization, is a necessity. Some outline such as follows may be helpful.

Article I NAME AND PURPOSE
Article II MEMBERSHIP
Article III OFFICERS
Article IV DUTIES OF OFFICERS
Article V MEETINGS
Article VI POWERS
Article VII AMENDMENTS

The activities first taken up by the Council should be such that they can easily be assured of success. More difficult tasks may be attempted as the Council grows through experience. Early activities might be any of the following:

1. The care of the bulletin board. Much planning for interest and attractive display could be aroused.
2. Welcoming new students.
3. Promote "Safety First."
4. Promote good behavior at assemblies and public events and proper etiquette at all times.
5. Promote "Open House" and other simple activities which may be helpful in promoting co-operation and understanding between the school and the community.

New activities should be approached gradually and cautiously and additional powers given only after proof that the Council is ready, has been verified.

We, as educators in a democracy, are not doing our part to keep alive the basic tenets of that democracy, unless we seize upon any and all opportunities to promulgate the freedom, opportunity, and responsibility which are the foundations upon which it rests. Student Councils offer one very tangible way of promoting a high degree of pupil participation.

Toward Understanding Children

By H. GERTHON MORGAN

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SINCE 1940 more than twenty different scientific fields have made significant contributions to our understanding of children and youth. These concepts of growth, development, behavior and learning are slowly but surely being communicated to our most promising potential users, the parents and teachers in our nation, for the enhancement of our nation's greatest resources, our children and youth. All channels of communications—journals, daily newspapers, television programs, pocket books, popular magazines, lectures, discussion groups—are being used daily to present and often develop one concept or another, and, at times, an entire theory of human behavior.

In general, there is agreement that this communication is valuable but there is increasing concern about the nature of much of it. One psychiatrist recently reported his conviction that

"we have made people afraid of becoming parents; we stand a good chance of making people afraid of becoming teachers."

A neighborhood minister stated,

"I have trouble finding books and pamphlets on child development I feel comfortable in suggesting to my church study groups—it seems that every book is a collection of chapters on sins that all parents have committed at one time or another."

But while these disturbing statements are being made, and with much support, many parents and teachers are profiting from the materials available and are demonstrating their ability to use wisely what is known about human behavior. One thing is becoming increasingly clear and certain. Parents and teachers are expressing their need to understand children. They are using every resource available to help them in making more valid decisions about children. Their hour by hour experiences and relationships with children have given support to their belief that they need to understand children, to know something of the individual motivational pattern within children, to know what children are working on and toward. The impact of the communication of explanatory concepts has convinced them that it is good to understand children, so much so that they want their children understood in the home, in the school and the larger community. Moreover, this impact has been sufficient to convince them that the knowledge of the processes shaping, producing, directing, evoking human behavior does exist and should be made available to them. They have arrived at these convictions:

1. Parents, teachers, and others working directly with growing boys and girls need to understand children.

2. It is basically a good thing for children to be understood individually.
3. The necessary concepts explaining human behavior do exist.
4. It is perfectly possible for these understandings to become a basic part of the personal make-up of parents, teachers, and others.

In these convictions, there is a mandate for specific help. There is, in addition, a challenge to all concerned with bringing together the findings on human development as well as with the communication of these findings to interested persons to call upon past and present experience for the best guides available for rendering the needed help.

Knowledge Needed By Parents and Teachers

Experience tells us that if parents and teachers want to understand children, they need three types of knowledge.

1. *Parents and teachers need to possess a knowledge of the scientific concepts that explain the learning and behavior of a child and his development through time.* Although our present information is incomplete, the processes evoking behavior can be identified with a high degree of accuracy and our current knowledge is remarkably adequate for meaningful understandings. As these understandings become part of the personal knowledge of parents and teachers, significant progress will be made toward understanding children. A basis will then exist not only for understanding behavior, but also for planning and realizing wholesome conditions, relationships and experiences desired for the future learning and development of the child. But too frequently we forget that the possession of scientific concepts alone is not enough: other considerations are equally necessary.

2. *Parents and teachers need to possess the unique and personal body of information about the experiences and feelings in the life story of the individual child.* This body of information is crucial, because only through the possession of it can we make use of the scientific explanations. These explanations reach their highest level of significance when they can be used to explain the dynamics of one individual's behavior. Parents have the advantage in this since they know much about their children: often, unfortunately, teachers are at a disadvantage for most schools are not functioning well in the development and use of adequate cumulative records. But many communities can well boast of teachers who seek information about individual children through making home visits, surveying cumulative records, studying tests results, conferring with other teachers and parents at school, examining the "life space" or area in which a child experiences, analyzing a child's work and his creative productions, chatting informally with the child, and observing the child's behavior closely. Teachers have demonstrated their ability to secure the necessary information; moreover, many have acquired skill in recording their findings objectively through time while adhering to a very rigid code of professional ethics in the use of the material.

3. *Parents and teachers also need, in order to relate the appropriate scientific concepts to the life story information with accuracy, skill in being more scientific in arriving at judgments about*

children. Due to culturally induced habits, many depend on traditional folk explanations for big classifications or patterns of behavior, others seek relief from concern about behavior through assigning blame by referring to the child as being "lazy," "stubborn," or "just like his father," while still others remain in a constant state of readiness to apply any idea or concept to their children or take advice in the same manner we are accustomed to from the one-sided advertisements or political presentations. Far too many make judgments that are simply not true and far too many are content with one generalized explanation. Some skill in the use of the scientific method will aid in arriving at sounder judgments and will enable parents and teachers to recognize that not only is behavior caused, but that the causes are multiple and complexly interrelated.

Using Knowledge In Relation To A Child

These three essentials to understanding—concepts explaining behavior, information about the child, and skill in procedures of analyzing behavior—are necessary in arriving at judgments about any child's behavior, including the following small segment of Sam's behavior.

Monday, October 1

This morning, during our regular arithmetic period, Mary was explaining a multi-step problem at the blackboard. Suddenly, she stopped in her explanation and was unable to continue. The teacher offered help. Finally, Mary said, "I don't know how to work it." Sam, sitting in the back of the room, said, "My, ain't she brainy!"

Is it enough to say that Sam always blurts out, that he wants attention, that he is a show-off, or that he is a disturbing element? If the attitude is one of blame, this is as far as one might go: an attitude of inquiry, however, would suggest exploring the behavior by some careful technique such as making of multiple and alternative hypotheses. For example: Why did Sam say, "My ain't she brainy!"

It could be that:

1. He may be entering adolescence and is calling attention to his growth.
2. He may possess body dynamics producing a high level of energy that must be expended.
3. He may be experiencing major physical changes and therefore is subject to many stimuli from internal biological developments.
4. He may be working on accepting the changes in his body, particularly his rapidly changing appearance, and is calling the attention of others to himself.
5. He may be a child who lacks supporting relationships at home and therefore attempts to cut others down.
6. He may use this behavior pattern to compete with brothers and sisters for his share of attention at home.
7. He may be earnestly seeking a closer relationship with the teacher and uses this behavior to demand the teacher's attention.
8. He may be attempting to establish a measure of independence from adults.
9. He may lack belongingness in his peer-group and is striking back at a group member.
10. He may have low status in his group and is attempting to advance himself.
11. He may be exhibiting his first interest in establishing boy-girl relationships.

12. He may come from a home where the cultural patterns encourage this type of behavior.

13. He may find school expectations too confining.

14. He may be experimenting with language appropriate for his sex and developmental level.

15. He may be inadequate in arithmetic.

16. He may be inadequate in other academic areas.

17. He may be very adequate academically and is bored with the immediate situation.

18. He may be intellectually bright.

19. He may be mentally low.

20. He may have a picture of himself as being very inadequate.

21. He may use an adjustment pattern of verbal aggression.

22. He may adjust habitually by "lording it over others."

These and additional hypothesis could be advanced. Often, the making of such hypothesis is a group experience; more often, teachers and parents find themselves going through a similar mental procedure as they make the many decisions about the children for whom they care. The three types of knowledge parents and teachers need are involved.

A brief survey of the hypotheses offered indicates that an organizing framework of concepts representing the minimum range of factors and processes involved has been considered. This framework includes 1) the physical factors and processes, 2) the climate of affection in which the child lives, 3) the social and cultural background dynamics, 4) the interaction of the child with his peer group and his group belongingness, 5) the self developmental potentialities and processes, and 6) the self defensive and adjustive processes. The concepts present in each of the areas of the personal syntheses of any one individual is used in making such hypotheses: experience has indicated that the individual synthesis of concepts develops and becomes more complete and accurate through such usage.

Of course these hypotheses would be of no value without a body of objective information about Sam. Normally, one would go through the available information and find that some of the hypotheses could be supported, others negated, while others would suggest the need for additional information. The process would offer clues for the further facts needed and sounder judgments about Sam would be realized. As supported insights are reached, teachers and parents normally find many ways to facilitate a child's learning and they play more effective roles in helping children with their behaviors.

Some evidences of scientific care is present in this examination of Sam's behavior. The question raised about his behavior is free of opinion, conclusion, blame, and censure. An over-all framework of concepts is used in offering possible explanations. The nature of the explanations lend themselves to actual testing with selected information on Sam. Only objective and factual material about Sam would be used in the testing. The way is left open for additional hypothesis, information, and conclusions or even different conclusions.

Using Knowledge Within A Philosophical Framework

Science does not determine the goals of behavior: science aids in revealing what is happening, why and how it is happening. Culture, philosophy, reli-

gion, family patterns, individual abilities, and other factors combine to influence the goals of behavior. Consequently, in facilitating the development of our youngsters, we do so in keeping with a number of basic beliefs. Among these:

1. We believe that every human being is valuable, that he is worthy, that he is to be respected, and that he has every right to a decent self-fulfilment. We are dedicated to help each child become, to realize his possibilities, to operate at a maximum level. Being understood is a basic part of valuing. Valuing is an interacting process and development is largely a matter of inter-action. Being valued and understood in the interaction processes facilitates the total development of the child.

2. We believe that democratic processes are best for guiding the development of the individual. A democratic climate provides conditions that are optimum for living and conditions that will foster optimum development of the child. Although democracy is not always fully understood, democratic people have gone a long way in manifesting faith in each other as people, even children, participate in the processes by which they are affected and they have a voice in the decisions determining the conditions and processes affecting their development.

3. We believe, further, that the scientific way of arriving at conclusions is the best method our culture has to offer at this time for arriving at decisions. It offers a check on our decisions and is a great aid to us in arriving at safer directions, better conditions, relationships, and experiences for our children.

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Some Uses *of A* Home *and* School Encyclopedia

By CHARLES A. FORD

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F. E. Compton & Co., Chicago, Illinois

EVERYONE agrees that a school must have adequate reference sources available for the use of the children and the staff. Everyone knows that homes too need reference sources for the family members of all ages. For many years special encyclopedias have been built to meet these specific needs. Their arrangements, contents, illustrations and writings are designed for use by children and those who have the responsibility for helping children become independent adults. To distinguish these encyclopedias from the adult sets, which are rarely used effectively by children, they are known as home and school encyclopedias.

Nearly all schools have one or more encyclopedias in their library. Many have one or more sets in each classroom —yet each year families buy many times the number purchased by all the schools and libraries combined. The obvious reason for these purchases is that families and schools have found encyclopedias do meet their needs for reference materials.

It is very satisfying and stimulating to get the answer you need when you need it. This single use has impelled the purchase of reference books for many years—but it is far from the only use of a home and school encyclopedia. In fact—reference values are but a small fraction of the built-in teaching and learning facilities available to the set owner.

The Reference Use

Because the most common use of an encyclopedia is to get specific facts about specific persons, places, events or things, it need not be discussed in detail here. Nonetheless, it must be remembered that no encyclopedia, however large or small, can carry *all* the facts available in the world.

Typically home and school encyclopedias include all the topics that are generally needed for home and school use. They also include a generous amount of related material to carry the reader beyond his immediate needs and interests into a realm of new ideas. They exclude materials that are so technical or so detailed that they are of interest only to the specialist.

Each encyclopedia establishes its own editorial policy and determines its own content and arrangement. There are significant differences between them in the facts included, the way the facts are presented, and the ease with which specific facts or all the facts can be located.

Because all facts are related to many topics, the specific fact you want may have been included in any of the sev-

eral different articles. With a carefully compiled index it is easy to locate a specific fact or all the facts easily and quickly. Without an index, it frequently takes an educated guess plus considerable luck to find it. As an example, try to find a picture of your birthstone in your classroom encyclopedia. Do you look up the article on the stone itself? Do you look in Jewelry? Do you look in Gems? Do you look for the month you were born? Do you look under birthstones? In an adequate index you can find the exact page where the picture appears under any of these headings.

For a broader reference use of some current interest, consider the need of background information on the Suez canal. Obviously there will be an article on Suez Canal—but what else is available? Will it be in Egypt, Canals, Disraeli, deLesseps, Asia, Red Sea or where? Where is the map? Again, try your classroom encyclopedia. You will be amazed at what you can find and where you find it.

Use In Teaching Basic Skills

Certainly one of the most important results of teaching is to have the pupils equipped with the basic skills of learning. These are many skills— not just the 3 R's. They involve the abilities to find information, to understand symbols, to evaluate information in terms of its usefulness to a specific problem, to organize, to paraphrase, to be able to tell others what one knows, to do the thousand and one things we all do every day without much thought. An encyclopedia is extremely helpful as a teaching aid for these skills. Because home and school encyclopedias are carefully built to meet the school needs of children, the children find in them materials which they can understand and use in learning new skills and reinforcing old ones.

Skill learning situations, suitable for every ability level and in every curricular and interest area, are available in a home and school encyclopedia. They can be used in natural ways which capitalize on children's love of discovery. Teaching skills, through an encyclopedia, requires only ingenuity and alertness on the part of the teacher. It does not require contrived, artificial situations. One can start naturally with any interest question and go on from there, making use of one encyclopedia feature after another. The multiplicity of visual aids, the simple text, the ease of finding what one wants, and the certainty that the articles will carry the child beyond his immediate needs into new questions and new experiences makes teaching with an encyclopedia a satisfying experience.

In an article of this length it is obviously impossible to cite illustrations of the many skills one can teach and reinforce through a classroom encyclopedia. In hope that a few illustrations will suggest others, let us look at the opportunities in some curricular areas.

Basic Social Studies Skills

Map reading is certainly one of the basic skills that is required in today's world. It is a part of every social studies course because it is a continuous need in life. The whole matter of projection, scale, symbols, grids, color and purpose can be very confusing even to adults. Learning to use all of these devices with understanding is no small task. It takes repeated experiences with the same types of maps and with different types of maps. In many books, because of lack of space, there are only a few maps.

The tendency in such cases is to make each map serve multiple purposes. Thus the maps are frequently too complicated for child use.

Encyclopedias provide maps of different areas but with the same symbols and scale. They also provide many maps of the same area with different symbols and scales. Maps in the same scale such as those used in the regional treatment of the United States provide good ideas of relative size without scale conversion. Maps of the same state in different scale and different symbols such as those in each state article, where a full page or frequently two facing pages are used to show one state, provide practice of another type. There are also many special purpose maps. These are simple in their concept. Product maps, locators, river drainage, roads, natural regions, trade routes, historic maps, picture maps, population density, rainfall, growing regions, and mineral productions are but a few of the special purpose maps. Each shows some special type of information without complicating it by extraneous features.

One of the basic skills of map reading is the understanding of map legends. A class project on Weather may be the springboard to understanding map legends. While discussing rainfall in class it is natural to turn to the encyclopedia article. Included in the article is a map of rainfall around the world. Of course it has a legend to explain the map symbols, otherwise it would be just another world map. The teacher takes the time to explain and have the children use the legend.

In the same volume and indeed in every volume of the encyclopedia are other maps with other legends. Children find the maps easily. They study the legends by finding examples of the symbols on the maps. They then tell some fact about that place. They will find many different symbols and learn that the symbols vary from map to map to show different things.

By such activities children learn (1) that maps usually have legends, (2) that the legend refers to that map alone, (3) that one must use the legend to understand the map, and (4) by using the legend one can draw some conclusions about the areas and places shown on the map.

Other map conventions involving color, scale, grids and directions can be taught similarly in connection with projects. By repeated, and varied map experiences, skills are taught naturally in finding wanted information.

A second social studies skills need almost every day even in adult life concerns graphs, their interpretation and construction. Graphs are important visual aids to understanding. They are included in many textbooks, newspapers and magazines, but like maps one must know something about charts and graphs to understand them. There are many different types. All intend to show facts for comparative purposes and not just an isolated fact. Some are based on changes that take place in time, others compare amounts in dollars or other units at a given time. Some use pictorial devices, some use lines, bars or areas for comparisons. Home and school encyclopedias use every type. Whether completely understood or not, graphs are attractive devices. Children love to make them to show their own data.

A health project at fourth grade level needed the class attendance record each day for a week. The class decided to

make a chart—but there were many ways of making such a chart. Several groups went to the classroom encyclopedias for ideas. Of course they found many charts and graphs which gave them ideas. One group found an article Graphs which showed many samples of different kinds. With the teacher's help, it also told them how to make a chart. Again with teacher help, they decided that a simple horizontal bar graph with one bar for each day and one unit of length for each child in attendance each day would show what they needed. With only a little help from the teacher they were able to make and label their chart. Having made it, they had taken the first step in understanding statistics. They would add to their information as time passed as they could see or make more charts and graphs.

Basic Science Skills

Certainly one of the most basic science skills is observation. One must see the right thing in a situation to come to the right answer. This is frequently very difficult. Sometimes it can't be seen directly. Sometimes it happens too fast. Sometimes one is just busy looking at the wrong thing. Observation takes practice and lots of it.

It can be helped along by good diagrams and text which explain what is not easily seen. In elementary schools there is a lively interest in many processes which involve science. Interests are often aroused by a new construction near the school. It was a new concrete highway which started a sixth grade project on concrete. The children watched the workmen drive up with a big mixing truck and unload. They were fascinated but didn't know what was back of this now common scene.

Their teacher wisely sent them to the classroom encyclopedia to look up Roads and Streets. They learned a lot about how they were built and used. They found out that concrete and asphalt were the most common paving materials. The class followed through to these subjects and found asphalt was both a natural material and a manufactured one. In the article on Concrete they found out about the different kinds and how each is made. A cut-away diagram of a concrete mixing truck explained its workings too.

Then they went to Cement to find out how that ingredient of concrete is made. Here again diagrams explained the entire process. Practically none of it could be seen directly! Now the entire class could watch building with understanding.

Experiments which children can do and from which they can learn to observe natural phenomena from the behavior of air to growing a plant can be found in home and school encyclopedias. These provide basic science skills on which our next generation will depend.

Basic Skills In Language Arts

There are many skills to learn in language arts. Reading, writing and talking are complex skills and each is dependent on many other skills. Using the index, cross references, guide words and subheads are some of these skills. Others are paraphrasing, outlining, summarizing and recognizing essential information. Infinite opportunity to develop all of these skills is found in a good encyclopedia. They can be based on any topic of child interest.

One day in class the teacher told the children an Uncle Remus story. Of

course, they wanted to hear more of these really excellent stories, but Miss Wilson had different plans. She wanted to teach them something about folk literature. Accordingly she asked the class to find out who wrote the stories and be prepared to talk about the author and the stories next day. With no further clue, the index showed them where to find out about the author and the African source of the stories.

Reading the articles gave the class a great deal to talk about next day. It also gave them a list of Harris' books which they wanted to read. Incidentally, they had had experience with an index, cross references, bibliographies, reading, listening, conversation, note taking and the use of a library. They also had had fun while learning something of the rich heritage in folk tales.

Classroom Enrichment

Aside from the reference values and help with basic skills, a home and school encyclopedia is a source of enrichment which adds luster to many an otherwise dull learning experience.

For instance, one day a history class was discussing the civil war. Among other things, they were talking of the arms used by the Federal troops. Naturally enough this led them to the fact that Eli Whitney had made rifles with interchangeable parts. It wasn't long until the encyclopedia was consulted for the biography of Whitney. Here they learned he was the same man who had invented the cotton gin. The cotton gin altered the agricultural south—and interchangeable parts altered the industrial north.

This start carried them on to other enrichments through the article on Invention, Labor, Industry and Automation; to the articles Warfare, Firearms, Artillery, Army, Navy, Air Force. It carried them to biographies of inventors of outstanding new devices—most of which have peaceful rather than war uses. Perhaps it even encouraged someone in the class to invent something—at least the study provided a rich background for today's problems in production.

Help With Special School Problems

There are special problems of all sorts to plague teachers and school administrators in the course of every school year. These may range from what to do for Sally—a slow, shy girl—to how to explain your school program to a group of taxpayers who think there is too much expensive "fluff" in it. They may range from planning a science fair to providing a meaningful program for a commemorative assembly program. These are common "special" problems.

Others may be highly individual and involve the special—but off beat interests of a particular child who is a minor authority in a field of interest practically unknown to the teacher. Stature and respect can be gained or lost quickly by contributing to the interest or at least sharing in the understanding and enthusiasm of the child.

In each of these cases, yes, in almost every special problem, there is help to be found in a home and school encyclopedia. The help is easy to find if one looks. But of course if one thinks of an encyclopedia in its reference use only, he won't try using it for special problems and will thus lose many of the built-in values. Here are suggestions in two areas only but there are many other areas with equivalent help.

To help explain a school program as

a whole or even parts of it there are articles available on Education and on each part of the curriculum such as Language Arts, Social Studies, Arithmetic and Health Education. There are also a wealth of psychological articles ranging from Child Development through Maturity. There are fine economic articles—Taxation to Stocks and Bonds. Ideas and facts to back them up are useful for a parent to read or a teacher to use in talking with parents formally or informally.

The special needs of children at both ends of the distribution curve can be met in interests and school subjects at all levels. Articles which coincide with child interests and curricular needs have been written and illustrated for ability levels commensurate with the needs for such information. Articles are written at the lowest level consistent with the factual treatment of the subject. The subheads and illustrations are conveniently placed and help locate specific material. The easier material comes early in the articles so that even a slow reader can read far enough to get some information at his level of reading ability and contribute to the class. By reading the entire article and then following the cross references and bibliographies the bright child is carried to the extent of his need too. All in all an encyclopedia is a flexible tool, which meets the needs of children at various ability levels.

Help With Family Living

"Being a member of a happy family is the most satisfying feeling in life." This is the first sentence of an article on Family in one encyclopedia. This article goes on to explain how a happy family is attained. It involves working together for the maximum development of each member of the family group. It means that each person knows his job and does it. It means mutual understanding and help. It means love and respect.

Because more encyclopedias are found in homes than schools and libraries combined, the publishers have prepared their books for multiple home uses. There are resources available for almost every phase of family living. They meet the needs of family members from pre-school children to mother and dad.

The personal uses of parents range from the articles on Baby Care to Adolescence; from Child Development to Universities and Colleges; from Architecture to Insurance; from Food to Interior Decoration; from Sports to the Bible and a myriad of things between. Whatever the interests and need of the parents in providing better family living, there is direct information and inspiration in the family encyclopedia.

For the children of the family there is material for both educational and recreational needs. There is material to be used *by* the child himself and there is material to be used *with* him. There is material for the pre-school child, the school child and for the college student. Materials first used with the child are later used by the child as he matures.

Every adult knows that children, even pre-school children, ask questions for which it is difficult to find a suitable answer. Usually the answer is available in the family encyclopedia. Depending upon the age and background of the child, the answer may be read directly from the article or it can be paraphrased by the parent or teacher.

For simple identification questions, pictures or diagrams in the encyclo-

pedia are frequently a complete answer. At other times they become the basis for a comparative answer. This can be true for the difference between a cardinal and a tanager at one level or between the helium and calcium atom at another level. Pictures are good teachers even if one is too young to read. Uses of this sort are endless.

At the pre-school level just learning the names of things is important. If given the opportunity to look and learn, even very young children will increase their information and vocabulary by looking through the family encyclopedia. Articles about common things, Dogs, Cats, Birds, Railroads, Tools, and Bridges fascinate young children. They look at them over and over. They talk about what they see and learn to name things. Such activity is easily carried out in the home by putting paper book marks in the volumes at the appropriate pages.

It has been said that what one brings back from a trip depends upon what he takes with him. Because this is true, schools preplan their field trips and to crystalize their learnings they review what they have seen after the trip. Families working together should do the same sort of thing whether the trip is a family vacation or visit to the zoo.

The planning should involve when to go, how to go, what to take, what will be seen enroute, what to see when you arrive, and, of course, what each member of the party does to help the project. If the trip happens to be a vacation in the family car, there are many things to be looked up before the trip. The places of interest in each state and town you visit, nearby national and state parks, the history of the region, and the climate are examples of what to look up. If it is a camping trip, someone in the family should review the article on Camping, Canoeing, Fishing or other outdoor sports. This is the sort of preparation which sends the family off with high expectations.

After the trip is over a family review of what has been seen is worthwhile. If one takes the time to check memory against encyclopedia articles, the review will cement the learnings while reminding each member of the family of a pleasant experience.

Yes—an encyclopedia is a very useful home and school learning aid. When it is used fully it provides stimulating answers to problems large and small.

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Who Wants *to* Memorize?

By ANN ESS MORROW
Pontiac, Michigan

THE QUESTION is asked, and the answers fly. A few "I do" 's, suggestive of the marriage ceremony, are lost in the dissenting chorus. Surely an alert teacher recognizes the challenge here—to keep the affirmatives happy in their choice to win the negatives over. In his mind he begins to organize a Drop-the-Adverb Campaign, aimed at the "I don't"-ers, to lure them into "I do" ways of thought.

Skillful Guidance Needed

In many classrooms today, memorization becomes a real chore, yet its possibilities are great. It can be a process of pleasant remembering, or distasteful memory work. Success depends upon the skillful guidance of the teacher, for individual differences, so stressed by modern education, are uppermost here. The wise teacher knows that there can be both delight and danger as he approaches the problem. Too little or too much—either is deplorable. Thus his observations and his judgment must be keen.

Learning Hindered by Reluctance

Experience would indicate that memory work done unwillingly carries little benefit to the student. He learns the words reluctantly and has no desire to interpret when he is not adequately stirred.

Obvious blocks and negative attitudes sometimes result from such terse, unmotivated assignments as, "Memorize twenty-five lines of poetry for tomorrow —and know them perfectly." Boys and girls look with hostile eyes at teachers who say this. Mary and Tom and Alice didn't like the poem in the first place; Peter and Jane didn't understand. Thus classroom unhappiness grows like Jack's Beanstalk.

If, then, the child has been left untouched aesthetically at the reading of the poem, the necessity to carve within his memory a picture of symbols meaningless to him plunges him into deeper dislike for that which is difficult and thereby strengthens unfavorable attitudes. Promptly he rebels, seeing the futility of memorizing that which he does not yet comprehend.

Problem Created by Teacher-Chosen Passages

This, it seems, has served as a block — demand memorization — a giving back in unfeeling fashion to the teacher those lines of poetry which he with the class-book enjoys. If lines are to be committed to memory—and the act does hold definite values, for only in the original words is there a polished patterning of sound—would it not be advantageous to have the boys and girls choose those with adolescent significance?

Quantity an Important Factor

Tim Jones memorizes gladly. His teacher never makes demands too great for him. Or if the lines by chance are more than several, Mr. White does not insist that boys and girls repeat the lines alone. Togther, as they say the words, they gain feelings of security, of oneness with the group, and satisfaction comes in chiming in as words become familiar.

The teacher Tim had last year, though, expected far too much. At such times Tim gave up—he wouldn't even try because he knew he never could complete the assignment, nor could any other person in the room except Marie. Marie could do anything, academic, but she couldn't bait a hook, and spiders made her cry—a thought that somehow gave Tim strength. Yet there was not enough to help him transfer words from page to memory.

Thus it sometimes happens that a child who memorizes willingly several lines of poetry revolts when he is given a large amount to learn. Successful experiences must always be within grasp of the child so that he may gain the satisfactions that come from achievement. And no so-called normal child will eagerly achieve the word-for-word reproduction of acres of lines in the literary field.

Memorizing as Punishment Deplored

Certainly, though, memorizing is not without merit—if used with discretion. Now Lorna really dreads it. Once she had to learn fifteen lines when she stayed after school because she'd talked in quiet time. From then on, learning flow of words was only a distasteful chore. She limped and stumbled over words that day, clock conscious. She never could repeat them accurately, and thus the beauty of original lines was lost. She saw them only as a series of demanding words, instead of symbols of thoughts that never could be well expressed if it were not for them. Thus memorizing must never become a form of punishment, or pleasure is crushed before it is born.

Value in Original Words

Memorization truly is essential to mastery, for one never fully knows a poem until he knows its language. Only when he has spoken it himself does it become a true part of the experience. Once alterations are made in thought and phraseology, original effectiveness is gone.

Arnold learns lines, too. He sparkles as he spouts them. "I think I know just how the poet felt that day. He wanted to fly way up high. Only he didn't have a plane or any wings. So he found words to do the flying for him." Truly to have memorized the language of the poem is to have re-lived the emotion of the poet at the time of writing.

Natural Learning Favored

When the children find a selection they enjoy and then work on polishing of lines, the learning is not forced, but natural, a kind of planned remembering with difference in connotation. If they approach it with sincerity, with understanding, and with eagerness, ease of memorization comes to them.

Certainly unless the child can see the value of the lines involved, he has no gain in memorizing them. "I don't see why we have to learn *that* stuff!" Jim grumbles openly with attitude both black and blue, suggestive of the damage done already.

"Because I told you to!" Those words so terse from Mr. Williams do not help in any way. Yet what a chance here for the teacher to guide Jim into seeing values, to open doors now barred to true appreciation!

Miss Towsley, however, meets the challenge. An academic magician is she, for by her skillful use of words, her insight and her understanding, she shapes attitudes of eagerness from those of real unwillingness; she inverts drooping

mouths and makes them into smiles. She knows how to untie the *nots* from the "I don't" 's, making them "I do"-ers.

"Why would you want to drop the course?" she asks of them. "Let's drop, instead, the adverb! Now who wants to memorize?"

"I do?" comes the chorus.

Concerning Student-Selected Lines

It has often been found much better, when the child has been guided into understanding lines, that he be allowed to choose the ones he wishes to remember.

"Can't we pick out the ones we want?" asks Penny, like an eager shopper.

"No!" roars Mr. Springer. He's twice as big as she is, so he's entitled to his two cents' worth. He'll show them he's boss here, even though he's Mr. Meek at home. The fact that he is hen-pecked puts him in a mood that's fowl. And enthusiasm blacks out like a television picture when a tube gives way.

Mrs. Green nods happily, though, When Freddie asks her. Faces brighten and eyes fly bird-like over lines but recently grown meaningful.

At times the child is much surprised at his remembering those lines that he has said because they bring him pleasure. "Jeepers, I didn't know that I could say that!" Harold exclaims with happy incredulity. Quite without warning, it suddenly seems to him the lines are his, and he is pleased, for he has made no conscious effort to memorize.

When he chooses consciously what lines to learn, he should understand that he must always carry through without abandoning a thought or line because it overruns the number that has been assigned. No noon-day whistle must blast him from a scaffold with the bricks half-laid.

Values in Memorizing Great

Some teachers use another means of motivating memory work. Mr. Johnson lists the worthy passages, and boys and girls discuss their literary value, and in the special study of the lines, they tend to learn unconsciously the lines to which he has intentionally exposed them.

Whatever worthy technique is used, however, we must acknowledge that there is value in retaining the original words of a thought artistically expressed, for in repeating worthy words of another, one tends to have awareness of the poetic way of looking at life. It makes for a heightened sensory reaction, a keener sense of value for words.

Creation of Pleasant Attitudes Sought

Yet much pedagogic insight is needed to keep an atmosphere of willingness, and to know pleasant ways of accomplishing this end. Always we must aim at the "I do!" response, with its connotation of academic eagerness. Where is the boy or girl who does not feel a glow at hearing familiar words in which he can join, in the very saying of which he can experience more deeply that which reveals itself in print?

Surely teachers should recognize that in most cases poetry can be learned with comparative ease by little folks, as well as by big, and that through thoughtful guidance of the students into a willingness and eagerness to learn the poet's words, teachers can perpetuate pleasurable experiences, a thought as warming as a cup of steaming tea.

Certainly in the words of Hilda Conkling are found artistry and truth:

> Loveliness that dies when I forget
> Comes alive when I remember.

Reading *for* Thinking

By J. HARLAN SHORES
University of Illinois

THERE IS NO reading without thinking. Perhaps all of us have, at one time or another, "read" a few pages and suddenly realized that we knew nothing that was there. We recognized all the words, but our minds were with something else. This waste of time is not reading. This is not the skill that all parents and educators want for children. Reading involves understanding, interpretation, and evaluation, and these are thought processes.[1]

So one can think without reading, but one cannot read without thinking. Or to put it another way, reading and thinking are inseparable when the printed word is involved in the thinking.

Speed and Comprehension

Probably only those who have worked with it closely for a long time even begin to realize how extremely complicated the reading process is. It includes all the skills and abilities involved in thinking as well as those related to the learning and use of printed symbols. Consider for a moment just a few of the factors that may help to determine how rapidly you read and how well you comprehend. Some of these are directly related to the physical characteristics of the material—size of type, type style, blackness and sharpness of print, quality and tone of paper, size of page, organization on the page, amount of white space, kind of illustration, placement of illustration on the page, relations of illustration to text, headings and subheadings, and overall organization and design.

Other factors that may affect speed and comprehension are related to less tangible aspects of the material—the clarity of the writing, the field of knowledge from which the writing is drawn, the complexity of the ideas being developed, the author's style and choice of words, the kind of writing (poetry, narrative, description, etc.), the rapidity with which ideas follow one another, and the extent to which ideas are fully developed.

Still other factors that determine reading speed and comprehension are directly related to the reader, his personality, and his environment while reading—how he feels (whether he is sleepy, alert, healthy, ill, calm, nervous, relaxed, tense, etc.), what he has on his mind, his emotional stability, his vision, whether he likes to read, his mental abilities, his reading skills, his ideals, his biases, his prejudices, his freedom from distractions. All these and many more he brings to his reading job and each may help to determine how he reads.

But most important of all to both reading comprehension and speed are those factors that relate the reader to the material he is reading—the background of experience he has for this material, his purpose for reading it, his interest in this field and especially in the part of it about which he is reading, his mental set with respect to this job

and to this material, his familiarity with the peculiarities of style and phraseology of this author and this field, whether these new concepts are compatible with or contrary to those he already holds in this field.

It is impossible to say which one of these or the many other factors that may affect a person's reading is most crucial in reading for thinking. For any one person nearly any one of them could play a major role. A child who can't see well enough to distinguish the word forms, can't read. The emotionally upset child may not be able to read or think until his emotionality is more stable. The person with strong prejudices may not even be able to understand an opposing argument. A person with no background for his reading is imagining meanings. The reader with no purpose in mind collects trash and jewels alike and often doesn't know one from the other.

While all these factors must be recognized as real determinants in the reading process, and none can be overlooked as clues in the improvement of reading and thinking, a few must be singled out for special attention—not because they are more important in the reading development of any one child, but because they are more central to the thought processes of reading for all children and adults.

What one gets from reading depends heavily upon what he brings to it. Without adequate experience background for a passage, adequate comprehension is impossible. Perhaps this is easiest seen in its extreme. If the reader has no meanings in his experience for the words he sees, there can be no understanding, no interpretation, no evaluation. In fact, there can be no thinking about these words, except perhaps vague wonderings of what it is all about.

A most important part of reading and thinking about that which is read must depend then, on earlier experiences. And the amount and kind of comprehension including of course, the amount and kind of thought, is very dependant upon this earlier experience. It would be a grievous error to think of experience limiting comprehension in an all or none manner. On the contrary, it is a continuum in a web of partial understanding, partial conceptions, and partial abilities to see and use the concepts developed in the passage.

Meaning

A high-school boy was asked to develop the meaning of the often quoted lines from Scott's *Lady of the Lake*, "The stag at eve had drunk his fill, Where danced the moon on Monan's rill".[2] To him the meaning was fairly clear. "A fellow without a date had drunk all he could hold at a tavern called Monan's. And the moon was shining on the tavern, or maybe it meant they were selling moonshine there." This meaning undoubtedly is not Scott's and is different from the picture you or I might bring to these words. But it is unfair to say that he has not comprehended. Have you and I understood these lines when we have different mental pictures after reading them? Have the other students understood Scott's passage when one thinks of a rill as a hill, and another as a valley on the moon? Has a child no comprehension of the roundness of the earth when he thinks of it as round and flat like a coin? Is the boy who put Scott's stag in the tavern any farther off than the boy who has never left the plains when he reads

about the Alps? Or the boy from the tropics when he reads about snow? Or I when I read about protons and neutrons?

The point, of course, is that words are symbols to stand for something, and what they bring forth depends on the experience of the person doing the reading. If we want these symbols to have exact meanings, as they can with precise definition, then we must build exact experiences behind them. The time to learn what osmosis means is not while reading the word, but while learning about it. And in this instance, the meaning is probably easier developed by demonstration, observation, and experiment.

A rich program of learnings at home and at school and a good reading program are not different things. They are two sides of the same coin. When there are the beginnings of a chemistry lab in the basement, or a few seeds in a flat box, or an active science program at school, the rich backgrounds of meanings are being developed that must be there if the reading of science is to provide the understandings, interpretations and evaluations that make reading a thinking process.

Purpose

While the reader's experience background provides a basis for comprehension and thought, the reader's purpose sets the conditions for doing the job efficiently. How fast does a good reader read? What does the good reader comprehend? How does the good reader think while reading? These questions don't have good answers, because they are foolish questions. When such questions are asked, the reading process is not understood, for the extremely vital role of the reader's purpose has been forgotten.

Would we ask a carpenter how fast he can build? Or how well he can build? Or what he keeps in mind while building? He would think we had lost our minds. What is he building? What are the specifications? For whom is he building? To what use is the building to be put? If we answer these questions, he can answer the first ones.

So it is with reading. If the reader knows what he is reading, and for what purpose he is reading, he can then tell us how rapidly he can do the job, what he plans to get from it, and how he intends to do it.

A good reader may cover material at a thousand words a minute and do an excellent job if all he wants is a general idea of what the passage is about. He may cover the same material at fewer than a hundred words a minute and also do an excellent job if he now wants to recall all the ideas of the passage in sequence and relate them to another sequence that he has in mind from another book. He is using different reading skills during these two readings, and he is using them efficiently in both instances. The difference, of course, is in the job he set for himself. It is a difference in his purpose for reading.

The reader who can read only to recall facts is as handicapped as the builder who can build only tool sheds. Neither of them has the skills in command to be able to vary their techniques to the requirements of the task. The inexperienced workman has only a few tools and a few skills in the use of these. He spoils his product by using these few tools and skills where others are required. The inexperienced reader, whether he is a child learning to read or an adult learning to read well, bun-

gles the job in much the same manner and for much the same reasons. He lacks skills, and he often uses those he has for inappropriate purposes.

Examples of inefficient reading related either to unclear definition of purpose or to inability to use the skills that fit the purposes are almost too common to single out. There is the student who can't understand why he did poorly on the test when he read the material seven times. There is the person who reads a novel as if it were a textbook. He has memorized all the insignificant facts surrounding the story and now complains that he hasn't time to read as many novels as he would like. And there is the person who pages through a book looking for a fact without trying the index or table of contents. None of these are using the skills that the task requires.

Practice

To improve the efficiency of skills, whether they be in reading, drawing, computing, carpentering, cooking, golfing, fishing or something else, requires practice. Fortunately, much of this practice, both in school and out, can be had while doing the job. And fortunately too, those jobs where inefficiency steals the most time and effort are those that we find ourselves doing more frequently. These then get the most on-the-job practice. In addition, of course, deliberate practice sessions can be scheduled.

At this point, it cannot be overemphasized that just any kind of practice won't do. Wide reading is no panacea for reading inefficiency. The practice must be directed toward the inability. Practice materials must be carefully chosen to develop the skills needed to read for a particular purpose. If a reader is fairly efficient in scanning a passage for a pertinent fact, but has great difficulty reading a passage to select the central and subordinate ideas, there is no great need for him to practice scanning for a fact, but there is real need for practice in reading to select the central and subordinate ideas.

Home remedies without a complete and professional diagnosis are probably as ineffectual or even dangerous to educational growth as are such remedies to physical health. And this probably is especially true in as complicated an educational area as that of the improvement of reading and thinking. For even though an attempt was made here to indicate something of the complexity of these processes, space permitted only a very partial coverage.

Learning to Think

Thinking was mentioned only as a part of the reading process. Learning to think surely is as much a part of reading and thinking as is learning to read. Yet with these dangers of oversimplification clearly in mind, a few things to keep in mind in order to improve reading and thinking, might be as generally good as a warning to get plenty of sleep, eat nourishing food and drive safely. If these few simple guides to better reading are of any value, they are probably as applicable to the teaching of reading beyond the primary grades as they are to the improvement of adult reading habits.

1. Probably the first question the good reader answers for himself is, "What am I reading for? What do I want from this material?" This sets the task and enables efficiency if his knowledge and skills are equal to it.

2. Once he is into the material, he should be sure that he is understanding

well enough to satisfy his reason for reading. If he is reading for fun, the only test is whether he is enjoying himself. But if it is a work-type job, the concepts needed for the job must be understood. This judgment may send him to easier material or to related background materials. It may even require some firsthand experience to make the material meaningful. But whatever it takes, there is no substitute for enough background knowledge to give meaning to the verbal symbols.

3. While he is reading, the good reader is always partially aware of his reading skills. He is enough aware of them so that he recognizes at once when the skills he is using aren't the most efficient ones he might use. He then shifts them with changes in the material or with changes in his needs.

4. As he plans to improve his reading, he probably would gain more by turning his attention first not to himself and his reading abilities, but to the reading jobs required of him. Why do I read? For what purposes do I read? Or in the classroom—For what purposes do the children in my room read? For which of these purposes is practice needed?

5. Once he has located the kinds of reading where he needs practice, he might ask whether there is any reading of this kind that he needs to do or wants to do. If he can accomplish a real job while practicing, so much the better. In any instance the content learnings, which in this practice are of secondary importance to skill development, should be worthwhile in themselves.

6. Now as he begins to practice in his reading for a particular purpose, he might turn his attention to his skills. What is giving me trouble in this job? How might I do it faster? What could I do to get it better?

In Conclusion

That this is an oversimplified approach to the development of more efficient reading and thinking about that which is read cannot be denied. A reading specialist could cite hundreds of aspects of reading ability that aren't even mentioned here. He could also offer valuable help with any of the factors mentioned or discussed above. It is therefore important to mention that this discussion was not intended as a guide for the diagnosis of reading difficulties or for the improvement of reading abilities.

It was instead a brief consideration of some of the factors affecting reading and thinking, and an equally brief group of suggestions that might form a general guide for the improvement of reading with respect to two of the most important of these factors—the experience which the reader brings to the page and the reader's purpose in reading.

1. National Society for the Study of Education, *The Teaching of Reading, A Second Report.* Thirty-sixth Yearbook, Part I, Public School Publishing Co., Bloomington, Ill. 1937. P. 6.

2. Scott, Sir Walter. *The Lady of the Lake,* Houghton Mifflin, New York. 1913. P. 10.

DEPARTMENT OF BOOK REVIEWS

WILLIAM P. SEARS, Jr., *Book Review Editor*
School of Education, New York University

TALES OF A TEACHER. By Beatrice Stephens Nathan. Chicago. Regnery. 1956. $4.00.

Teachers will enjoy reading this very human document which is the life story of a member of the profession. Beatrice Nathan began her teaching career in a small mountain town in California in 1915. From her description of her school, her lodging, and her problems, one might surmise that the time was closer to the Civil War than to World War I. The story is a fascinating and vital one and Beatrice Nathan is not afraid to air her prejudices and dislikes. She does not like much that is going on in schools today and she abhors schools of education.

—W. P. S.

ADMINISTRATION OF ELEMENTARY SCHOOLS. By Harlan L. Hagman. N. Y. McGraw-Hill. 1956. $5.00.

Professor Hagman, Dean of the College of Education at Drake University, presents a most comprehensive picture of the elementary school principal in the setting of present-day education in this well-organized and meticulously prepared text. The book is designed primarily for use in classes for the preparation of elementary school principals but it will also be useful to in-service principals and other school administrators. The emphasis is upon the principal in relation to the role of education in society and more especially to the place of the elementary school in the whole task of education. Such foundational aspects of administration as planning, organization, and authority are fully discussed in relation to the problems of curriculum development, supervision, administration of pupil personnel, home-school relations, school and community, the school plant, modern aids in teaching, and whole life of the elementary school. The chapters are lucidly written with carefully prepared summaries and bibliographies.—W. P. S.

THE ELEMENTARY SCHOOL PRINCIPAL AT WORK. By William V. Hicks and Marshall C. Jameson. N. Y. Prentice-Hall. 1957. $4.50.

This is a very refreshing approach to the work of the elementary school principal. As such, it should prove very helpful to those who are new to the job and it can serve as a guide to those who are seasoned veterans. The book follows the principal about his work and it covers the day-to-day, month-by-month, and year-by-year requirements of the job. The problems and issues are clearly defined and ways of meeting and facing up to them are carefully delineated.—W. P. S.

CITADEL: THE STORY OF THE U. S. SENATE. William S. White. N. Y. Harper. 1957 $3.75.

The way the United States Senate operates is admirably told in this engaging book. Mr. White, chief Congressional correspondent for the *New York Times* tells the story of the organization he calls "the Institution" with wit, humor, and directness. He respects the Senate and extolls its honor and vitality. He sees also its unique character. How the Senate came into being, how it developed its role in American government, how its membership has maintained its curious character over the years are some of the facets of the volume. The philosophies and personalties of great senators of today and of the past are reviewed and numerous anectodes bring the story to life—here are Senator Robert A. Taft, Tom Connally, Byrd of Virginia. "Joe" McCarthy and the "inside" on the MacArthur case, the Army *vs* McCarthy affair—and a host of other vital aspects of senatorial activity. An excellent book for both citizen and student.—W. P. S.

SOCIETY AND EDUCATION. By R. J. Havighurst and B. L. Neugarten. N. Y. Allyn and Bacon. 1957. $5.75.

The authors of this text have drawn widely and deeply upon the sciences of sociology and anthropology in order to amass material that will be of help to teachers as they face the problem of understanding how individuals become cooperating members of a complex society. The book examines the place of the educational system in the society which it serves and it points out that the American school system performs two essential functions. First, it interprets and transmits the values of society and assists children in taking their places as participating members of society. Second, it promotes the ideals of society and helps children to make their maximum contributions to the community and thus improve the society in which they live. After an introduction dealing with the general structure of American society and the processes underlying social development, the authors consider the social environment of the child and the adolescent viewed from the standpoint of the major social influences that operate on him—the family, the peer group, and the various community institutions. Next, the school is considered as a social institution. The final section treats of the teacher as the crucial person in the interaction among child, school and society. The volume is a serious one, comprehensive and broad yet vital and to the point. Its arrangement with text, exercises, and suggestions for further reading is such as to make it ideal for teaching purposes.

—W. P. S.

FODOR'S MODERN GUIDES: BRITAIN AND IRELAND 1957; FRANCE 1957; SCANDINAVIA 1957. N. Y. David McKay. 1957. $3.95 per volume.

The "Fodor Guides" have become standard equipment for the European traveller. Revised and reissued each year, they are comprehensive, complete and carefully indexed. The list now covers most of the European countries. Teachers who are planning on a summer holiday in Europe should invest in the appropriate volumes early because they contain so much information, and offer such wise short cuts and hints for the traveller. They are also loads of fun to read.—W. P. S.

TEACHING IN AMERICA. Forty-Third Annual Schoolmen's Week Proceedings. Edited by Frederick C. Gruber. Philadelphia. University of Pennsylvania Press. 1956. $2.00.

The proceedings of Schoolmen's Week have been published each year without interruption since 1916. It is with this volume, *Teaching in America,* that this series of annual reports joins the family of publications of the University of Pennsylvania Press. The papers presented in this volume are classified under four headings: Teaching in America, Elementary Education, Secondary Education, and Administration. Helen C. Bailey and Pearl S. Buck stimulate the reader to want more after they discuss teachers and the teaching situation. Eight papers on elementary education cover topics from the fundamentals, to exceptional children, to half-day sessions. Harold R. W. Benjamin, as only he can do it, discusses the fundamentals in relationship to early Persian education and Alice in Wonderland, coming out with "three C's" (Communication, Craft, Character), instead of "3 R's". The section on secondary education includes a variety of papers with a number of unique subjects including "Shakespeare in the Senior High School," "A Geographic Reconnaissance of Greenland," and "Creative Dramatics." Harold Seashore and William C. Coffman highlight the administrative section with their articles on testing. It is unusual to find a collection of papers so well written and with such a close relationship to the topic.—Jerome Leavitt, Associate Professor of Education, Portland (Oregon) State College.

THE GROWTH OF MUSIC. By H. C. Colles. N. Y. Oxford University Press. 1956. $7.00.

Colles history of music has been an established classic in its field for the past forty years. In this one-volume edition, the famous and accurate old work has been brought up-to-date by the eminent musicologist, Dr. Eric Blom. This is a volume for the shelves of all schools and colleges.—W. P. S.

THIS IS TEACHING by Laurence D. Haskew. Scott, Foresman and Co. Pp. xv+352. $4.50. 1956.

The exciting and unique recent book, THIS IS TEACHING by Haskew, can serve many purposes.

The volume is different from the standpoint of its makeup. The exciting phase is its arrangement of content into two parts, with one color for the main body and another color for the reference materials. The actual technical placement of pictures, page numbers, columns, type size, headings, and charts are masterly handled.

The uniqueness of THIS IS TEACHING is borne out in the content and informal style. Interesting cases, exhibits of educational materials which are used by schools, factual information presented in an understandable manner, an annotated list of recommended films and readings, and the inclusion of a glossary of educational terms make this book more than a mere textbook.

It seems to me that THIS IS TEACHING can serve a wide audience including not only students of education and college teachers, but laymen as well. Here in one volume is found materials to give a clear insight into what teaching is, something about the learner, and something about the current scene in American education with its historical foundation.—Rachel D. Wilkinson, Hunter College in the Bronx, N. Y.

GENERAL MENTAL FUNCTIONS ASSOCIATED WITH DIVISION. By Henry Van Engen and E. Glenadine Gibb. Iowa State Teachers College, Cedar Falls. 1956.

The theory that arithmetic should be learned through a few general ideas instead of many specific constructs is given a further test in this study. Division as successive subtraction of divisors is the one general idea that is emphasized in the experimental method that is compared in effectiveness with the conventional procedure of stressing the three-process cycle of the operation. Using twelve fourth grade classes of Des Moines and Sioux City, Iowa, the investigators found, in a very carefully designed study, that the experimental method was superior in producing better understanding of the idea of division and in inducing transfer of familiar division experiences to unfamiliar situations, of equal effectiveness in the retention of skill and understanding, and less effective in successful solving of problems previously taught.

Those who value understanding and the ability to transfer what is learned to new situations more than mechanical performance and the ability to recall set models will be encouraged by the results of this study.

—John J. Kinsella
Professor of Education,
New York University

MODERN ART U. S. A. By Rudi Blesh. N. Y. Knopf. 1956. $5.00.

Oldsters will recall the daring and revolutionary Armory Show that opened in New York in February 1913. For the United States, "modern art" became a potent force in our culture after that unique event. Rudi Blesh, with a rich background in both art and music, subtitles his book, "Men, Rebellion, Conquest 1900-1956." In its pages, there are both people and events— Streghtz, the "291" gallery, Lillie Bliss and Abby Rockefeller, The Museum of Modern Art, Peggy Guggenheim and her "Art of this Century", and many, many more landmarks in the history of the men and movements of contemporary art. The present volume grew out of Blesh's study of modern art in America done for the Museum of Modern Art.—W. P. S.

THIS IS MY FAITH. Edited by Stewart G. Cole. N. Y. Harpers. 1956. $4.50.

This volume comprises the convictions of representative Americans of today. Two broad trends are evident in the expressions of all of these contributors as they discuss the faith they find necessary to sustain themselves in the present world. One group stresses the viewpoint of traditional and organized religion; the other speaks in terms of the potent values of secular idealism. Included in the twenty-five contributors are such people as Leonard Carmichael, Albert E. Einstein, Ernest Hocking, Horace M. Kallen, William H. Kilpatrick, M. I. Ashley Montague, Gardner Murphy, Pitirim Sorokin, Mark Starr, Ordway Tead, and Robert Ulich.—W. P. S.

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